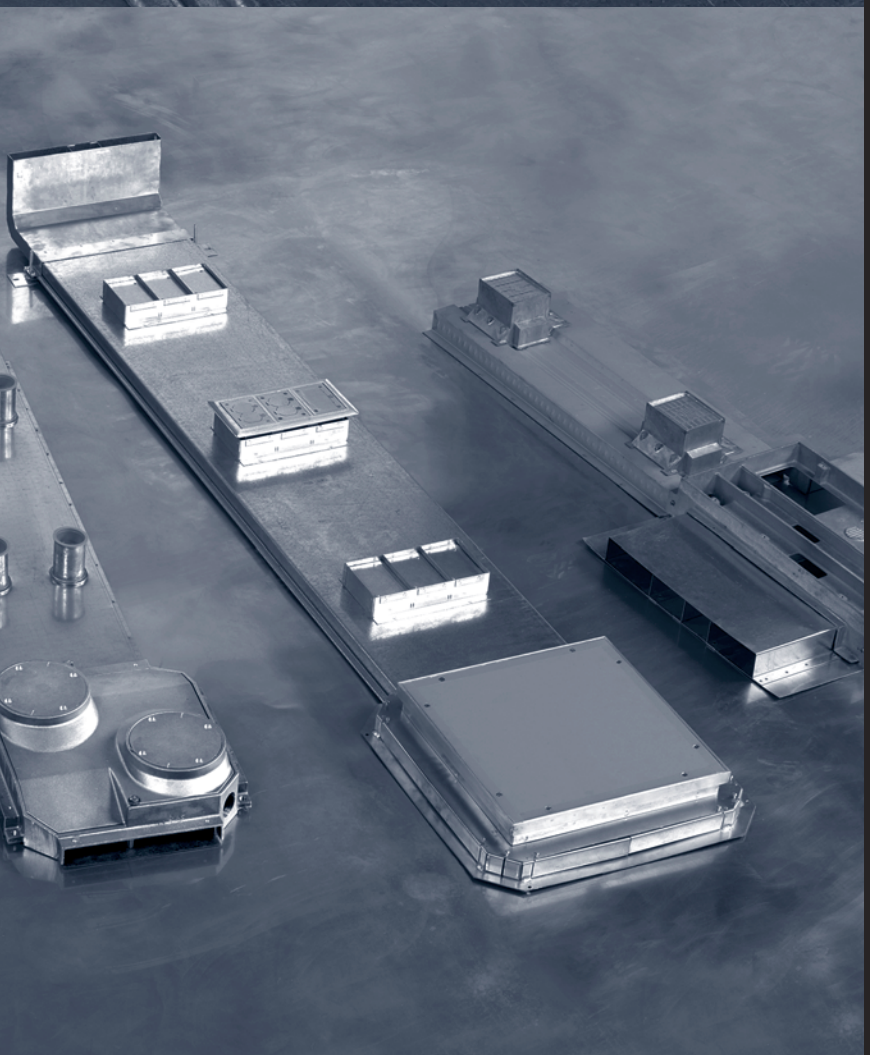

Steel City®

B

Underfloor Duct

Conventional Underfloor Duct
- Specifications
- Wire Fill Capacity

Flush Activation Underfloor Duct

Casino Underfloor Duct

Cellular Underfloor Duct
- Components
- How to Order
- Specifications
- Fill Capacity

Trench Duct
- Specifications
- Installation Instructions

Wire Fill Capacity

Wall Duct
- Installation Instructions
- Wire Fill Capacity

Thomas&Betts

Multi-Compartment Conventional Duct Saves Time and Money in Your In-Slab Wire Management System

The Steel City Conventional Underfloor Duct System is an in-slab wire management product for delivering power, voice and data services to numerous point of sale locations or office workstations. The Steel City Conventional Underfloor Duct System is uniquely designed with multiple compartments, allowing unlimited design options and fantastic cost savings in labor and materials from other single-compartment systems.

Here is how Steel City Conventional Underfloor Duct works for you:

- Five designs available, providing the most complete offering in the industry.
- Multi-compartment duct, drastically reducing installation and material costs.
- Three insert heights, expanding the design options of 1", 1½", and 2" sizes.
- Inclusive tile trim in the junction box, providing the installer the on-site option of using the trim or leaving it recessed.
- Combination duct couplers and supports, reducing material and labor costs using the same part for two functions.
- Meets or exceeds UL 884 specifications, assuring a fully approved system from one manufacturer.

Matched with our strong national distribution and complete technical and applications support, the Steel City Conventional Underfloor Duct system is the perfect solution for your underfloor wire management needs, and at an affordable price. As a part of our complete wire management and components offering, Steel City Conventional Underfloor Duct is perfect for:

- Supermarkets
- Retail Facilities
- Casinos
- Office Buildings
- Airports
- Institutional Facilities

Estimating Steel City Conventional Underfloor Duct

Step 1: Determine the total number of feet of duct you'll need for your space.

Step 2: Calculate the number of pieces of duct necessary by dividing the total number of feet by 10. Always round up to the next whole number.

Example: Total length of duct = 226 feet
226'/10' = 22.6 pcs. Total number of pieces required for the job is 23.

Step 3: Determine number of junction boxes and accessories necessary for the system.

- Duct Couplers/Supports – one for every 5' of duct.
- Duct End Cap/Supports – close off unused duct ends.
- Conduit Adapters – enters either the junction box or duct end.
- Afterset inserts – used primarily with blank duct.
- Service heads – SFH-series, SFL-series or none.

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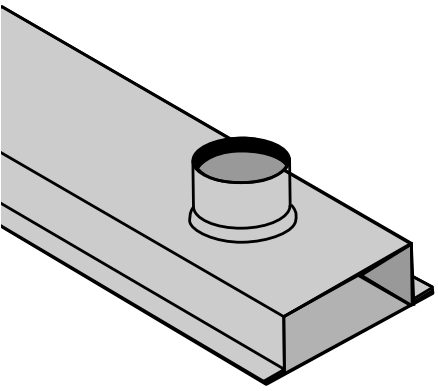
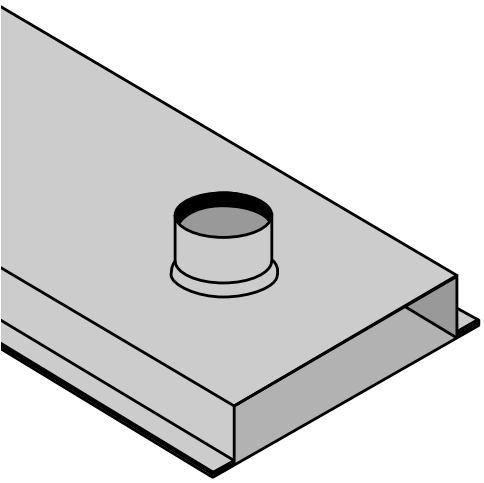


Standard Single Compartment

Standard Single Compartment Duct

Cat. No.	Duct Width	Duct Depth	Insert Spacing
201-B	3¼"	1½"	No Inserts
201-2-24	3¼"	1½"	2" High Inserts 24" o.c.
201-15-24	3¼"	1½"	1½" High Inserts 24" o.c.
201-1-24	3¼"	1½"	1" High Inserts 24" o.c.
201-2-12	3¼"	1½"	2" High Inserts 12" o.c.
201-15-12	3¼"	1½"	1½" High Inserts 12" o.c.
201-1-12	3¼"	1½"	1" High Inserts 12" o.c.

All duct standard 10' lengths.
Material: 14 gauge pre-galvanized steel with 668 coating
Presets: Die-cast zinc
UL Listing No. 884

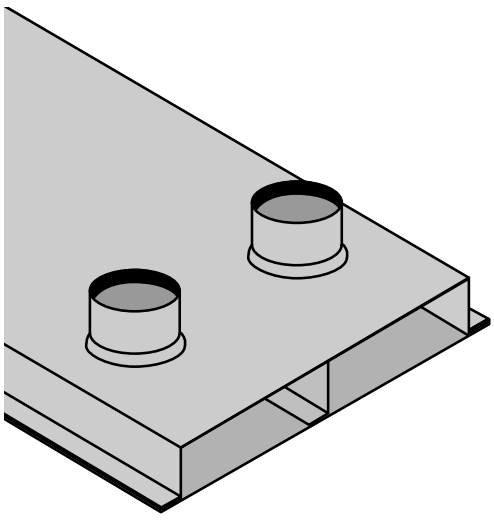


Wide Single Compartment

Wide Single Compartment Duct

Cat. No.	Duct Width	Duct Depth	Insert Spacing
201W-B	5⅞"	1½"	No Inserts
201W-2-24	5⅞"	1-1/2"	2" High Inserts 24" o.c.
201W-15-24	5⅞"	1½"	1½" High Inserts 24" o.c.
201W-1-24	5⅞"	1½"	1" High Inserts 24" o.c.
201W-2-12	5⅞"	1½"	2" High Inserts 12" o.c.
201W-15-12	5⅞"	1½"'	1½" High Inserts 12" o.c.
201W-1-12	5⅞"	1½"	1" High Inserts 12" o.c.

All duct standard 10' lengths.
Material: 14 gauge pre-galvanized steel with 668 coating
Presets: Die-cast zinc
UL Listing No. 884



Standard Two Compartment

Standard Two Compartment Duct

Cat. No.	Duct Width	Duct Depth	Insert Spacing	Compartment Width
202-B	10"	1½"	No Inserts	2 @ 5"
202-2-24	10"	1½"	2" High Inserts 24" o.c.	2 @ 5"
202-15-24	10"	1½"	1½" High Inserts 24" o.c.	2 @ 5"
202-1-24	10"	1½"	1" High Inserts 24" o.c.	2 @ 5"
202-2-12	10"	1½"	2" High Inserts 12" o.c.	2 @ 5"
202-15-12	10"	1½"	1½" High Inserts 12" o.c.	2 @ 5"
202-1-12	10"	1½"	1" High Inserts 12" o.c.	2 @ 5"

All duct standard 10' lengths.
Material: 14 gauge pre-galvanized steel with 668 coating
Presets: Die-cast zinc
UL Listing No. 884

For different compartment spacing consult factory.

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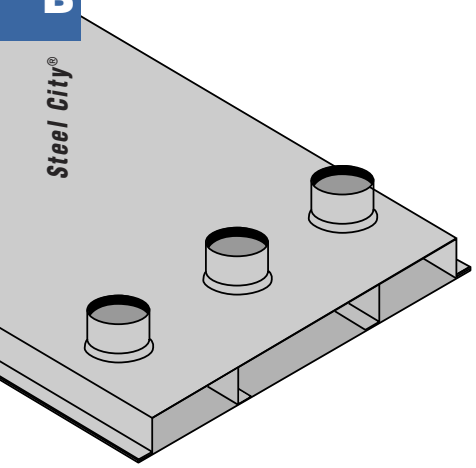


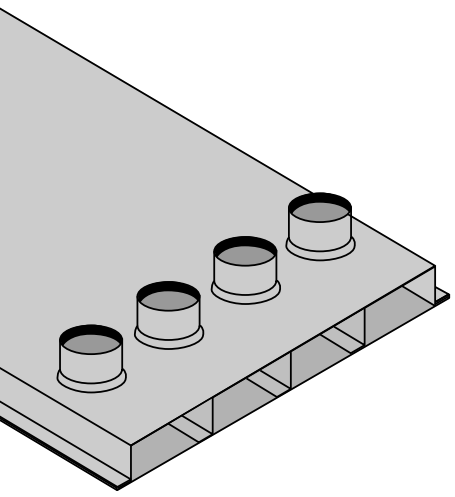
Standard Three Compartment Duct

Standard Three Compartment Duct

Cat. No.	Duct Width	Duct Depth	Insert Spacing	Compartment Width
203-B	15"	1½"	No Inserts	2 @ 4" – 1 @ 6¾"
203-2-24	15"	1½"	2" High Inserts 24" o.c.	2 @ 4" – 1 @ 6¾"
203-15-24	15"	1½"	1½" High Inserts 24" o.c.	2 @ 4" – 1 @ 6¾"
203-1-24	15"	1½"	1'' High Inserts 24" o.c.	2 @ 4" – 1 @ 6¾"
203-2-12	15"	1½"	2" High Inserts 12" o.c.	2 @ 4" – 1 @ 6¾"
203-15-12	15"	1½"	1½" High Inserts 12" o.c.	2 @ 4" – 1 @ 6¾"
203-1-12	15"	1½"	1" High Inserts 12" o.c.	2 @ 4" – 1 @ 6¾"

All duct standard 10' lengths.
Material: 14 gauge pre-galvanized steel with 668 coating
Presets: Die-cast zinc
UL Listing No. 884

For different compartment spacing consult factory.



Standard Four Compartment Duct

Standard Four Compartment Duct

Cat. No.	Duct Width	Duct Depth	Insert Spacing	Compartment Width
204-B	15"	1½"	No Inserts	4 @ 3⅝"
204-2-24	15"	1½"	2" High Inserts 24" o.c.	4 @ 3⅝"
204-15-24	15"	1½"	1½" High Inserts 24" o.c.	4 @ 3⅝"
204-1-24	15"	1½"	1" High Inserts 24" o.c.	4 @ 3⅝"
204-2-12SC	15"	1½"	2" High Inserts 12" o.c.	4 @ 3⅝"
204-15-12	15"	1½"	1½" High Inserts 12" o.c.	4 @ 3⅝"
204-1-12	15"	1½"	1" High Inserts 12" o.c.	4 @ 3⅝"

All duct standard 10' lengths.
Material: 14 gauge pre-galvanized steel with 668 coating
Presets: Die-cast zinc
UL Listing No. 884

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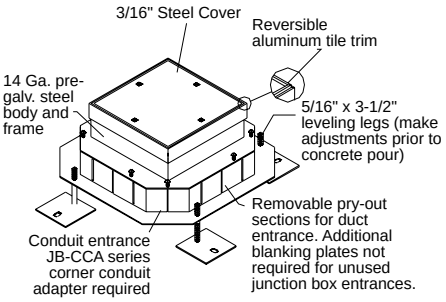
Steel City®

Conventional Underfloor Duct

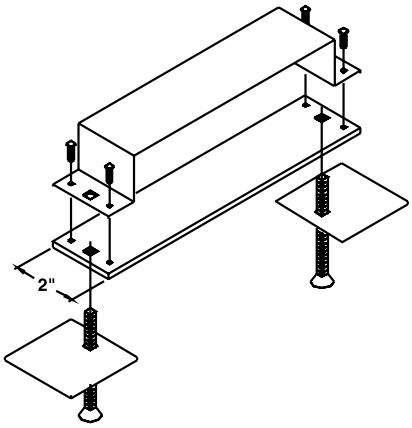

3/16" Steel Cover
Reversible aluminum tile trim
14 Ga. pre-galv. steel body and frame
5/16" x 3-1/2" leveling legs (make adjustments prior to concrete pour)
Removable pry-out sections for duct entrance. Additional blanking plates not required for unused junction box entrances.
Conduit entrance JB-CCA series corner conduit adapter required

Steel City Underfloor Duct Junction Boxes offer several labor saving and design advantages. The boxes are manufactured with a concrete ring approximately ¼" higher than the corresponding duct to allow for the proper amount of concrete fill over the duct inserts. Also, the boxes are made from durable 14 ga. pre-galvanized steel and come with a reinforced 3⁄16" thick steel cover. In addition, our junction boxes include a built-in tile trim which can be easily removed, flipped over and reinstalled when the surrounding floor tile is installed. Our junction boxes are also manufactured with removable duct and corner entrance plugs which are easily removed for duct and corner conduit adapter entrance.

Junction Boxes

Cat. No.	Description	Inserts
201-JB-4	For Standard Single Cell Blank Duct	For 4" Afterset Only
201-JB-3	For Standard Single Cell Blank Duct	For 3" Afterset Only
201-JB-2	For Standard Single Cell Duct	For 2" Preset or Afterset
201-JB-15	For Standard Single Cell Duct	For 1½" Preset or Afterset
201-JB-1	For Standard Single Cell Duct	For 1" Preset or Afterset
201W-JB-4	For Wide Single Cell Blank Duct	For 4" Afterset Only
201W-JB-3	For Wide Single Cell Blank Duct	For 3" Afterset Only
201W-JB-2	For Wide Single Cell Duct	For 2" Preset or Afterset
201W-JB-15	For Wide Single Cell Duct	For 1½" Preset or Afterset
201W-JB-1	For Wide Single Cell Duct	For 1" Preset or Afterset
202-JB-4	For Standard Two Cell Blank Duct	For 4" Afterset Only
202-JB-3	For Standard Two Cell Blank Duct	For 3" Afterset Only
202-JB-2	For Standard Two Cell Duct	For 2" Preset or Afterset
202-JB-15	For Standard Two Cell Duct	For 1½" Preset or Afterset
202-JB-1	For Standard Two Cell Duct	For 1" Preset or Afterset
203-JB-4	For Standard Three Cell Blank Duct	For 4" Afterset Only
203-JB-3	For Standard Three Cell Blank Duct	For 3" Afterset Only
203-JB-2	For Standard Three Cell Duct	For 2" Preset or Afterset
203-JB-15	For Standard Three Cell Duct	For 1½" Preset or Afterset
203-JB-1	For Standard Three Cell Duct	For 1" Preset or Afterset
204-JB-4	For Standard Four Cell Blank Duct	For 4" Afterset Only
204-JB-3	For Standard Four Cell Blank Duct	For 3" Afterset Only
204-JB-2	For Standard Four Cell Duct	For 2" Preset or Afterset
204-JB-15	For Standard Four Cell Duct	For 1½" Preset or Afterset
204-JB-1	For Standard Four Cell Duct	For 1" Preset or Afterset

Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668



Coupler/Supports

Cat. No.	Description
201-DCS	Standard Single Cell Duct
201W-DCS	Wide Single Cell Duct
202-DCS	Two Cell Duct
203-DCS	Three and Four Cell Duct

Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668

Steel City duct coupler/supports provide a means of not only coupling duct sections together but also supporting the duct sections. It is recommended that a support/coupler be used every 5' of duct run.

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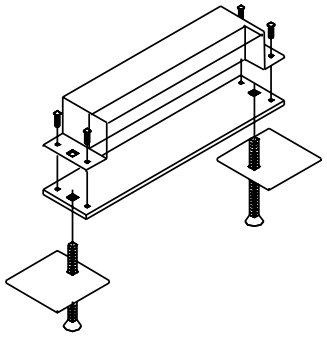
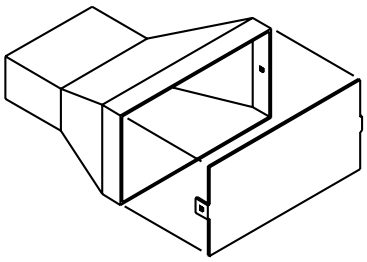


End Cap/Supports

Cat. No.	Description
201-ECS	Standard Single Cell Duct
201W-ECS	Wide Single Cell Duct
202-ECS	Two Cell Duct
203-ECS	Three and Four Cell Duct

Steel City End Cap/Supports provide a means of supporting and closing unused duct ends.

Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668

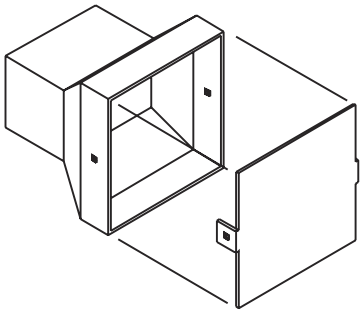


Conduit Adapters

Cat. No.	Description
201-UCA	Standard Single Cell Duct
201W-UCA	Wide Single Cell Duct
202-UCA	Two Cell Duct
203-UCA	Three Cell Duct
204-UCA	Four Cell Duct

Steel City End Conduit Adapters are provided with a removable blank cover which is field punched for the required combination of conduits. Conduit adapters for multi-compartment duct are supplied with interior barriers to maintain separation between services.

Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668

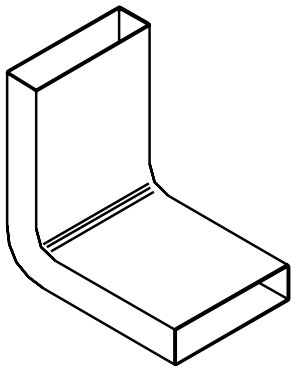


Junction Box Corner Conduit Adapters

Cat. No.	Description
JB-CCA-B	With Removable Blank Cover
JB-CCA-1/2	With pre-punched ½" k.o.
JB-CCA-3/4	With pre-punched ¾" k.o.
JB-CCA-1	With pre-punched 1" k.o.
JB-CCA-1 1/2	With pre-punched 1½" k.o.
JB-CCA-2	With pre-punched 2" k.o.

Features a 16 gauge galvanized steel removable cover that may be field punched for required conduit.

Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668



Vertical Risers

Cat. No.	Description
201-VEL	Standard Single Cell Duct
201W-VEL	Wide Single Cell Duct
202-VEL	Two Cell Duct
203-VEL	Three Cell Duct
204-VEL	Four Cell Duct

Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668

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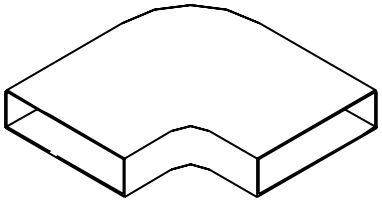
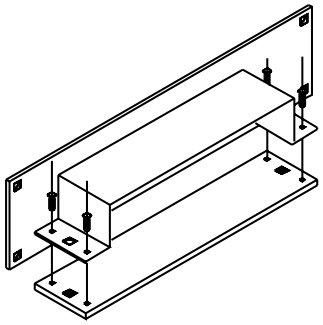


Horizontal Elbows – 90°

Cat. No.	Description
201-HB90	Standard Single Cell Duct
201W-HB90	Wide Single Cell Duct
202-HB90	Two Cell Duct
203-HB90	Three Cell Duct
204-HB90	Four Cell Duct

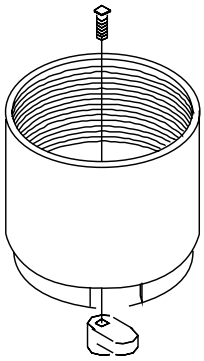
Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668



Duct Cabinet Connectors

Cat. No.	Description
201-DCC	Standard Single Cell Duct
201W-DCC	Wide Single Cell Duct
202-DCC	Two Cell Duct
203-DCC	Three and Four Cell Duct

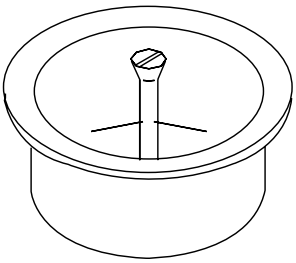
Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668



Afterset Inserts – 2" IPS Thread

Cat. No.	Height
DAI-1	1"
DAI-2	2"
DAI-3	3"
DAI-4	4"

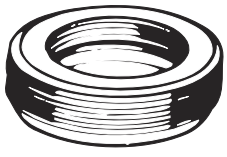
Material: Zinc die cast



Marker Caps

Cat. No.	Description
DMC-Z	Insert marker cap with zinc screw
DMC-B	Insert marker cap with brass screw

Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668



Reducing Bushings

Cat. No.	Description
RB-162	2" to ¾"
RB-163	2" to 1"

Material: Steel, Zinc Plated
UL Listing No. E-1275

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Service Head Fittings

Steel City service fittings provide above-floor service for power, communications and data. A variety of service fitting designs are available.

SFH-40-RG

SFH-40 Series

- ***Brushed aluminum finish.***
- ***Low profile design.***
- ***Furnished with 1" conduit nipple.***

SFH-50-2RG

SFH-50 Series

- ***Brushed aluminum finish.***
- ***Interchangeable face plates.***
- ***Furnished with 1" conduit nipple for direct screw-threading into a floor box plate with 1" cover opening.***

Service Fittings for Power

Cat. No.	Description	Finish	Dimensions W	D	H	Wt. (lbs.)
SFH-40-RG	Furnished with one 15 amp, 125 volt, 3-wire NEMA duplex receptacle	Brushed Aluminum	4⅜"	3"	2⅝"	1.6
SFH-40	Same as SFH-40-RG above less duplex receptacle	Brushed Aluminum	4⅜"	3"	2⅝"	1.5
SFH-50-2RG	Furnished with two back to back 15 amp, 125 volt, 3 wire NEMA duplex receptacles	Brushed Aluminum	5"	3⅜"	3"	1.38
SFH-50	Same as SFH-50-2RG less duplex receptacles	Brushed Aluminum	5"	3⅜"	3"	1.25
SFH-51	Furnished with cover plate to accommodate one 30 or 50 amp, 240 volt, 3 wire receptacle and blank cover	Brushed Aluminum	5"	3⅜"	3"	1.25

SFH-50 Series Component Parts

SFH-50-BASE	Standard above floor service fitting base only.
SFH-50-TELECOV	Device plate for SFH-50 with 1" dia. hole.
SFH-50-DUPCOV	Device plate for SFH-50 for duplex.
SFH-50-BLCOV	Blank device plate for SFH-50.
SFH-50-CVW11332	Device plate for SFH-50 with 1$^{13}/_{32}$" dia. hole.

UL Listing No. 514A

SFH-50-Base

Blank Plate SFH-50-BLCOV

Telephone Plate, 1" Hole SFH-50-TELECOV

Single Receptacle Plate, 1.39" Hole SFH-50-CVW11332

Single Receptacle Plate, 1.60" Hole SFH-50-CVW11932

Duplex Receptacle Plate SFH-50-DUPCOV

SFL-10

- ***Brushed aluminum finish***
- ***Low profile design***
- ***Furnished with 1" conduit nipple***

Service Fittings for Communications and Data

Cat. No.	Description	Finish	Dimensions W	D	H	Wt. (lbs.)
SFL-10	¾" x 1⅛" bushed opening for telephone or computer	Brushed Aluminum	4⅜"	3⅛"	2⅝"	1.5

UL Listing No. 514A

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Conventional Underfloor Duct Specifications

Part 1 - GENERAL

1.1 SUMMARY

Work under this section includes all labor and materials which are required for the completion of infloor distribution system, as shown on drawings and as specified. The Conditions of the Contract apply to this section as fully as if repeated herein.

1.1.1 Work includes, but is not necessarily limited to the following principal items.

a. Steel City metal underfloor raceway.

b. Related accessories, to include junction boxes, supports, closures, and all other items necessary to the Steel City system.

1.2 REFERENCES: The editions of specifications and standards referenced herein, published by the following organizations, apply to the work only to the extent specified by the reference.

a. Underwriters Laboratories, Inc. (UL Standard 884)

b. National Electric Code (NFPA No. 70)

1.3 QUALITY ASSURANCE:

1.3.1. Standards:

.1 The material, products and equipment specified in this section establish a standard of quality of required function, dimension, appearance and quality to be met by any proposed substitution.

.2 The manufacturer and installer shall demonstrate a minimum of five years experience with this type of underfloor duct system.

1.4 SUBSTITUTIONS:

1.4.1 No substitution will be considered unless written request for approval has been submitted by the bidder and has been received by the Architect at least ten (10) days prior to the date for receipt of bids.

1.4.2 Each such request shall include the name of the materials or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, mock-ups, performance and test data, compliance with codes and approvals and any other information necessary for evaluation.

1.5 SUBMITTALS:

1.5.1 Manufacturer's Data: Submit manufacturer's specifications and installation instructions for each product specified. Include manufacturer's certification as may be required to show compliance with these specifications. Indicate by transmittal form that a copy of each instruction has been distributed to the installer.

1.5.2 Shop Drawings:

.1 Submit detailed drawings showing layout of all Steel City raceways, junction boxes, and accessories as necessary for the proper installation of the infloor system.

PART 2 - PRODUCTS

2.1 STEEL CITY RACEWAY

2.1.1 Typical module as shown on drawings consisting of 1, 2, 3 or 4 compartment raceways.

2.1.2 Materials: Steel City duct shall be fabricated from 14 (2mm) gauge steel.

2.1.3 Capacity: Steel City 201 Series Raceway shown have outside dimensions of 3½" x 1½".
201W Series: 5⅞" x 1½"
202 Series: 10" x 1½"
203 Series: 15" x 1½"
204 Series: 15" x 1½"

2.1.4 Steel City Fabrication:

.1 The Steel City duct units shall be manufactured in maximum lengths of 10' (3048 mm).

.2 Protective Coating: The Steel City duct shall be coated for corrosion resistance.

2.1.5 Preset Inserts:

.1 Preset inserts shall be mounted 12" (304.8 mm) or 24" (609.6 mm) on center on the Steel City duct raceway.

.2 The preset inserts shall be made of zinc die cast, and shall be a minimum of 1" (25.4 mm) over top of the duct.

.3 The preset inserts will have an inside diameter of 2" (50.8) IPS capable of housing 2" (50.8 mm) conduit.

.4 The preset inserts shall have a beveled base which is expanded into the duct to form a continuous passageway.

.5 Each preset insert will have a removable cap that is recessed to receive concrete.

2.1.6 Junction Boxes:

.1 The junction boxes shall have openings in all 4 corners for conduit adapters.

.2 The junction box shall have pre-pour adjustment (vertical and angular) via 4 leveling legs.

.3 The junction box shall be supplied with integral aluminum tile trim.

.4 All duct and conduit connections shall be completely grounded via a grounding screw.

.5 Junction box shall contain inclusive tile trim.

2.2 ACTIVATIONS

2.2.1 Supply activation assemblies in quantities equal to 15% of the supplied preset inserts, or as detailed herein.

2.2.2 The manufacturer shall supply the necessary pieces to transition from the 2" (50.8 mm) I.P.S. preset to the service fitting.

2.2.3 Activation assemblies shall be Steel City SFH-50 series, SFH-40 series, SFL-10 series HELP

2.2.4 Activation assemblies shall be pedestal style (as specified).

3.1 STEEL CITY UNDERFLOOR DUCT INSTALLATION

3.1.1 Install distribution raceway system and accessories in accordance with the manufacturer's recommendation, installation instructions, the final installation drawings and as herein specified. Electrical module lines shall be laid out on the concrete base in each building bay and the raceway units shall be located in strict accordance with the electrical drawings in order to

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maintain the electrical module spacing.
3.1.2 Place raceway system on the supporting framework and adjust to final position with proper end bearing and alignment at the butt joints before permanent fastening. All joints shall be secured with grounding screws.
3.1.3 Permanently fasten the raceway supports to the supporting framework with screws and nails. Spacing between support shall not exceed 5'-0" (1524 mm).
3.1.4 The raceway supports and the raceway distribution system shall be adjusted so the top of the presets are 1/8 (3.2 mm) inch to 3/8 (9.5 mm) inch below the screed line.
3.1.5 Marker screw caps shall be used in place of the standard insert caps at the following locations: (a) in each insert adjacent to a junction box; (b) in inserts on each side of a permanent wall, and (c) in the last insert in each run of duct.
3.1.6 Do not use the installed raceway system for working platforms or walkways.
3.1.7 After placing of concrete fill and before wiring is installed, remove debris and other foreign materials.
3.1.8 If moisture is present, remove cover plates as necessary to allow air circulation.
3.2 FIELD QUALITY CONTROL:
3.2.1 Field testing and inspection are specified in Section 01410.
3.2.2 Protection: Protect installation of floor system from damage. Do not allow equipment or heavy traffic over Steel City duct during construction period, without first installing ramps over the duct. Ramps shall be designed so that imposed loads are not transferred to Steel City duct. Replace components of the system which are damaged during construction, at no cost to the Owner.
3.2.3 The installed Steel City raceway system shall be U.L. Listed Under Standard 884 and shall comply with Article 354 of the National Electric Code.
3.3 CONCRETE PLACEMENT:
3.3.1 Concrete topping shall be as indicated on the drawings and as specified under Section 03300. Concrete containing chlorides from any source shall not be placed over infloor units.
3.3.2 Before concrete placement, make a final inspection of the entire Steel City system. Any gaps in the system shall be sealed to prevent mortar or concrete from entering.
3.3.3 Reinforced concrete design shall be in accordance with American Concrete Institute Specifications for Structural Concrete for Buildings (ACI301-72) and ACI Building Code Requirements for Reinforced Concrete (ACI1318-83). Concrete placement shall follow proper and accepted industry practice and be in accordance with ACI Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete (ACI304-73), Concrete must be vibrated at all headers, junction boxes, and raceway to insure that the concrete completely fills underneath the Steel City system. However, it is imperative that the concrete not be over vibrated. Over vibration causes segregation of materials in the concrete mix which in turn leads to weakening of concrete strength.
3.3.4 Shrinkage and temperature reinforcement above the Steel City system shall be in accordance with ACI318-83. Care shall be taken during concrete placement and, in particular, during concrete vibration, to prevent rising of top reinforcement within the slab.
3.3.5 Contractors placing the concrete shall carefully hand finish a minimum of 24" (609.6 mm) adjacent to junction box access openings, so that the top of finished concrete and junction box access units are flush.

PART 4 - MANUFACTURER:
4.1 Acceptable Brands:
a. Steel City by Thomas & Betts.
b. Other suppliers must submit 10 days prior for approval.

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Conventional Underfloor Duct Wire Fill Capacity

	4.875 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	75	140	93	201	140
12	55	108	75	147	108
10	45	80	59	92	80

	5.4375 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	84	156	104	224	156
12	62	120	84	164	120
10	50	90	65	103	99

	6.0 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	92	173	115	247	173
12	68	133	92	180	133
10	55	99	72	114	99

	7.5 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	115	216	144	309	216
12	85	166	115	226	166
10	69	123	90	142	123

	8.8125 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	136	254	169	363	254
12	100	195	136	265	195
10	81	145	106	167	145

	10.125 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	156	291	194	418	291
12	115	224	156	305	224
10	93	167	122	192	167

Number of allowable conductors at 40% fill.

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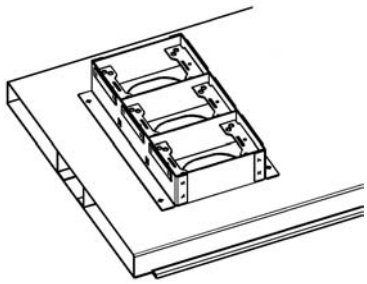
Steel City®

Flush Activation Underfloor Duct

Steel City Flush Activation Underfloor Duct provides an aesthetic wire management solution for delivering power and communications services. The new flush-style inserts, which use standard floor box covers for power and data outlets, make it the ideal underfloor duct solution for office environments, retail locations, casinos, and medical facilities. Steel City Flush Activation Underfloor Duct sets the standard for fast, easy installation by incorporating a unique one-piece duct design along with integral coupler/supports.

Steel City Flush Activation Underfloor Duct also sets the standard for application flexibility. The duct comes with activation inserts pre-assembled to the duct, or the inserts can be purchased separately for field installation only where you need them. Unique multi-gang inserts with removable voltage dividers provide the flexibility of installing multiple gangs of the same service at each insert location. In addition, the use of standard floor box covers enables a wide variety of power and data outlets.

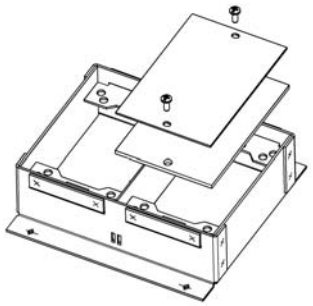


Features & Benefits:

- **Available in 1-, 2-, and 3- compartment duct configurations**

  Unique one-piece duct reduces installation labor.

  Welded-in dividers create separate channels for power & communications services.



- **Unique multi-gang inserts offer application flexibility**

  Removable voltage dividers allow multiple gangs of the same service at each insert location.

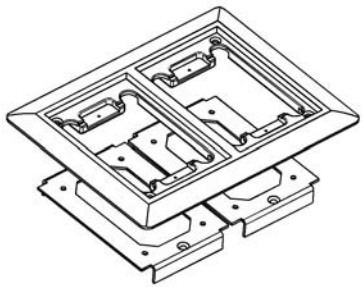
  Individual gangs can be activated as needed – keeps costs down.

  Afterset inserts are available for field installation – inserts only where you need them to minimize system cost.

- **Aesthetic, flush-mounted activation trims are available for both carpet and tile applications**

  Brass, aluminum and nonmetallic trims are available.

  Tile trims have after-pour adjustability to accommodate variations in tile thickness.



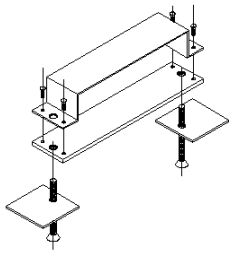
- **Activation trims accept standard Steel City P64 Floor Box covers**

  Brass, aluminum and nonmetallic covers are available.

  Complete cover offering accommodates a wide range of applications.

- **Combination coupler/supports simplify installation**

  Same part is used to join raceway sections together and to support / level the duct – reduces labor & material.



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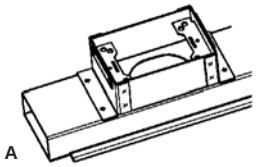
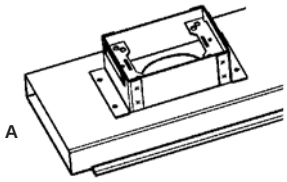
Steel City®

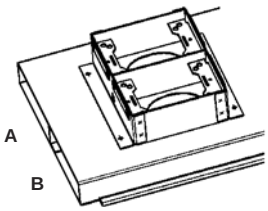
Flush Activation Underfloor Duct



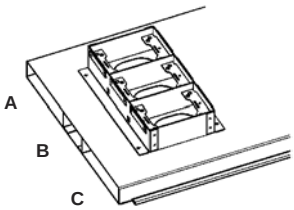
201 Series
Single Compartment



201W Series
Wide Single Compartment



202 Series
Two Compartment

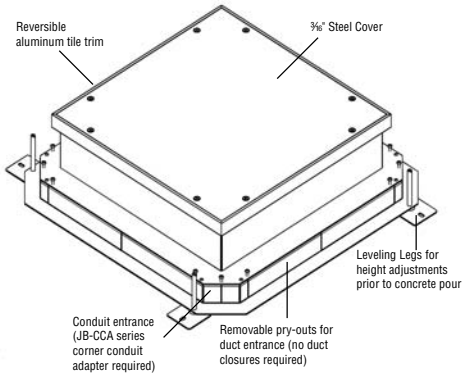


203F Series
Three Compartment

Duct Sections

Cat. No.	Duct Depth	Duct Width	Compartment Width	Insert Height	Insert Spacing
201-B	1½"	3¼"	A = 3¼"	(no inserts)	(no inserts)
201-3-24-F	1½"	3¼"	A = 3¼"	3"	24"
201-2-24-F	1½"	3¼"	A = 3¼"	2"	24"
201-15-24-F	1½"	3¼"	A = 3¼"	1½"	24"
201-3-12-F	1½"	3¼"	A = 3¼"	3"	12"
201-2-12-F	1½"	3¼"	A = 3¼"	2"	12"
201-15-12-F	1½"	3¼"	A = 3¼"	1½"	12"
201W-B	1½"	5⅞"	A = 5⅞"	(no inserts)	(no inserts)
201W-3-24-F	1½"	5⅞"	A = 5⅞"	3"	24"
201W-2-24-F	1½"	5⅞"	A = 5⅞"	2"	24"
201W-15-24-F	1½"	5⅞"	A = 5⅞"	1½"	24"
201W-3-12-F	1½"	5⅞"	A = 5⅞"	3"	12"
201W-2-12-F	1½"	5⅞"	A = 5⅞"	2"	12"
201W-15-12-F	1½"	5⅞"	A = 5⅞"	1½"	12"
202-B	1½"	10"	A & B = 5"	(no inserts)	(no inserts)
202-3-24-F	1½"	10"	A & B = 5"	3"	24"
202-2-24-F	1½"	10"	A & B = 5"	2"	24"
202-15-24-F	1½"	10"	A & B = 5"	1½"	24"
202-3-12-F	1½"	10"	A & B = 5"	3"	12"
202-2-12-F	1½"	10"	A & B = 5"	2"	12"
202-15-12-F	1½"	10"	A & B = 5"	1½"	12"
203F-B-120	1½"	15"	A & C = 6" - B = 3"	(no inserts)	(no inserts)
203F-3-24-F	1½"	15"	A & C = 6" - B = 3"	3"	24"
203F-2-24-F	1½"	15"	A & C = 6" - B = 3"	2"	24"
203F-15-24-F	1½"	15"	A & C = 6" - B = 3"	1½"	24"
203F-3-12-F	1½"	15"	A & C = 6" - B = 3"	3"	12"
203F-2-12-F	1½"	15"	A & C = 6" - B = 3"	2"	12"
203F-15-12-F	1½"	15"	A & C = 6" - B = 3"	1½"	12"

All duct sections 10' long, 14 gauge pre-galvanized steel.


Reversible aluminum tile trim
3/16" Steel Cover
Leveling Legs for height adjustments prior to concrete pour
Conduit entrance (JB-CCA series corner conduit adapter required)
Removable pry-outs for duct entrance (no duct closures required)

Junction Boxes

Cat. No.	Description
201-JB-3	Junction box for 201 Series Duct with 3" high inserts
201-JB-2	Junction box for 201 Series Duct with 2" high inserts
201-JB-15	Junction box for 201 Series Duct with 1½" high inserts
201W-JB-3	Junction box for 201W Series Duct with 3" high inserts
201W-JB-2	Junction box for 201W Series Duct with 2" high inserts
201W-JB-15	Junction box for 201W Series Duct with 1½" high inserts
202-JB-3	Junction box for 202 Series Duct with 3" high inserts
202-JB-2	Junction box for 202 Series Duct with 2" high inserts
202-JB-15	Junction box for 202 Series Duct with 1½" high inserts
203F-JB-3	Junction box for 203F Series Duct with 3" high inserts
203F-JB-2	Junction box for 203F Series Duct with 2" high inserts
203F-JB-15	Junction box for 203F Series Duct with 1½" high inserts

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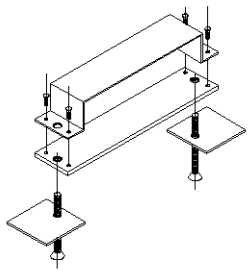
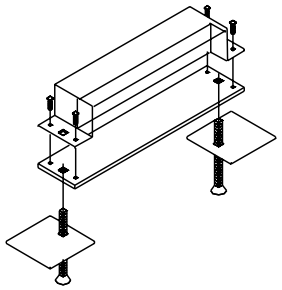


Coupler/Support

Cat. No.	Description
201-DCS	Duct Coupler/Support for 201 Series Duct
201W-DCS	Duct Coupler/Support for 201W Series Duct
202-DCS	Duct Coupler/Support for 202 Series Duct
203-DCS	Duct Coupler/Support for 203F Series Duct

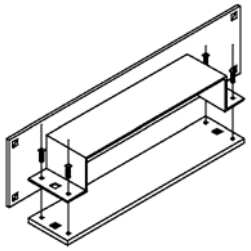
Provides means for coupling duct sections together and for supporting the duct system. It is recommended that a support/coupler be used every 5' of duct run.
Material: 14 gauge pre-galvanized steel



End Cap/Support

Cat. No.	Description
201-ECS	Duct End Cap/Support for 201 Series Duct
201W-ECS	Duct End Cap/Support for 201W Series Duct
202-ECS	Duct End Cap/Support for 202 Series Duct
203-ECS	Duct End Cap/Support for 203F Series Duct

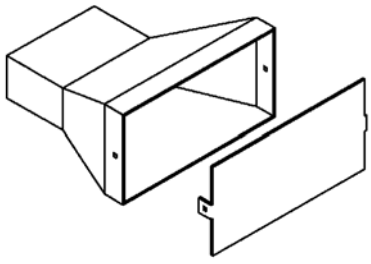
Provides means for supporting and closing off unused duct ends.
Material: 14 gauge pre-galvanized steel



Cabinet Connector

Cat. No.	Description
201-DCC	Duct Cabinet Connector for 201 Series Duct
201W-DCC	Duct Cabinet Connector for 201W Series Duct
202-DCC	Duct Cabinet Connector for 202 Series Duct
203-DCC	Duct Cabinet Connector for 203F Series Duct

Provides means for connecting duct to an electrical cabinet.
Material: 14 gauge pre-galvanized steel



Conduit Adapter

Cat. No.	Description
201-UCA	Universal Conduit Adapter for 201 Series Duct
201W-UCA	Universal Conduit Adapter for 201W Series Duct
202-UCA	Universal Conduit Adapter for 202 Series Duct
203F-UCA	Universal Conduit Adapter for 203F Series Duct

Provides means for attaching conduit to the underfloor duct system at the junction box. The conduit adapter is inserted into a main duct entrance. The blank cover can be field-punched for the required combination of conduits.
Material: 14 gauge pre-galvanized steel

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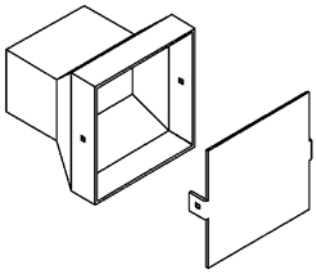
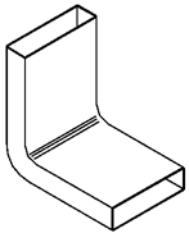


Corner Conduit Adapter

Cat. No.	Description
JB-CCA-B	Corner Conduit Adapter with blank cover
JB-CCA-1/2	Corner Conduit Adapter with ½" KO
JB-CCA-3/4	Corner Conduit Adapter with ¾" KO
JB-CCA-1	Corner Conduit Adapter with 1" KO
JB-CCA-1-1/2	Corner Conduit Adapter with 1½" KO
JB-CCA-2	Corner Conduit Adapter with 2" KO

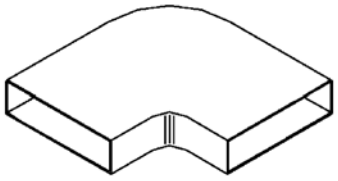
Provides means for attaching conduit to the underfloor duct system at the junction box. The corner conduit adapter is inserted into the corner conduit entrance of any size junction box.
Material: 14 gauge pre-galvanized steel



Vertical Elbow

Cat. No.	Description
201-VEL	Vertical Elbow for 201 Series Duct
201W-VEL	Vertical Elbow for 201W Series Duct
202-VEL	Vertical Elbow for 202 Series Duct
203F-VEL	Vertical Elbow for 203F Series Duct

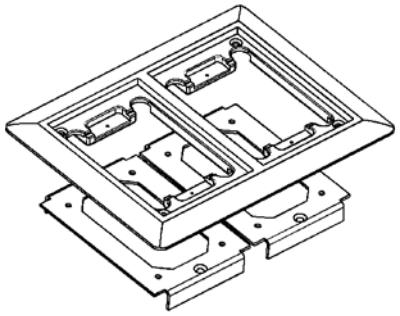
Material: 14 gauge pre-galvanized steel



Horizontal Elbow

Cat. No.	Description
201-HB90	Horizontal 90° Elbow for 201 Series Duct
201W-HB90	Horizontal 90° Elbow for 201W Series Duct
202-HB90	Horizontal 90° Elbow for 202 Series Duct
203F-HB90	Horizontal 90° Elbow for 203F Series Duct

Material: 14 gauge pre-galvanized steel



Carpet Activations

Cat. No.	Description	Color
641FA-CAC-A	1-Gang Carpet Activation	Aluminum
641FA-CAC-B	1-Gang Carpet Activation	Brass
641FA-CAC-BGE	1-Gang Carpet Activation	Nonmetallic - Beige
641FA-CAC-BLK	1-Gang Carpet Activation	Nonmetallic - Black
641FA-CAC-GRY	1-Gang Carpet Activation	Nonmetallic - Gray
642FA-CAC-A	2-Gang Carpet Activation	Aluminum
642FA-CAC-B	2-Gang Carpet Activation	Brass
642FA-CAC-BGE	2-Gang Carpet Activation	Nonmetallic - Beige
642FA-CAC-BLK	2-Gang Carpet Activation	Nonmetallic - Black
642FA-CAC-GRY	2-Gang Carpet Activation	Nonmetallic - Gray
643FA-CAC-A	3-Gang Carpet Activation	Aluminum
643FA-CAC-B	3-Gang Carpet Activation	Brass
643FA-CAC-BGE	3-Gang Carpet Activation	Nonmetallic - Beige
643FA-CAC-BLK	3-Gang Carpet Activation	Nonmetallic - Black
643FA-CAC-GRY	3-Gang Carpet Activation	Nonmetallic - Gray

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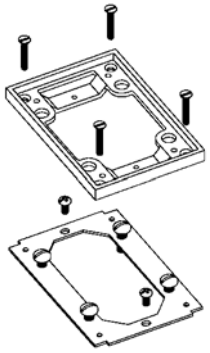
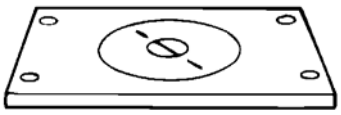
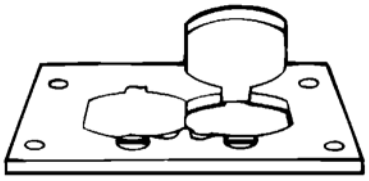


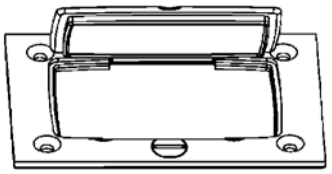
Tile Activations

Cat. No.	Description	Color
641FA-TAC-A	Tile Activation	Aluminum
641FA-TAC-B	Tile Activation	Brass
641FA-TAC-BGE	Tile Activation	Nonmetallic - Beige
641FA-TAC-BLK	Tile Activation	Nonmetallic - Black
641FA-TAC-GRY	Tile Activation	Nonmetallic - Gray

Note: One Tile Activation is required for each gang of the insert.
Provides means for height adjustment after the concrete pour to accommodate different tile thickness.





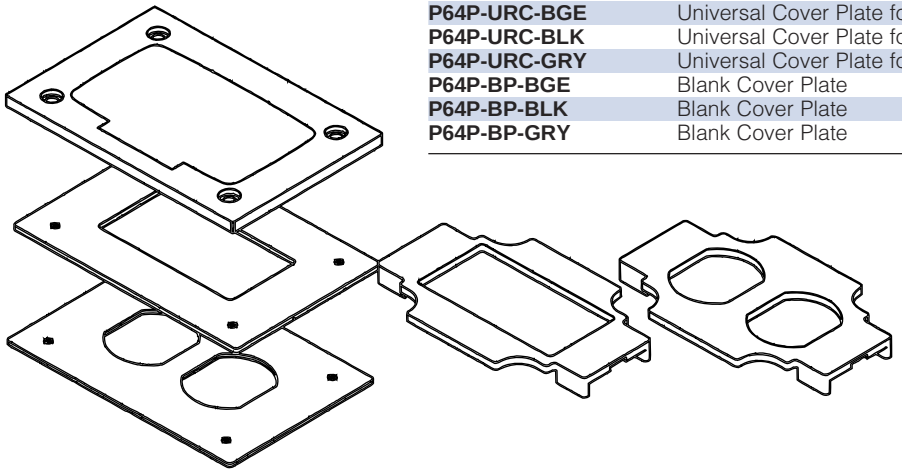


Metallic Covers

Cat. No.	Description	Color
P64-1/2	Cover Plate w/ ½" NPS Plug	Brass
P64-1/2-AL	Cover Plate w/ ½" NPS Plug	Aluminum
P64-3/4	Cover Plate w/ ¾" NPS Plug	Brass
P64-3/4-AL	Cover Plate w/ ¾" NPS Plug	Aluminum
P64-1	Cover Plate w/ 1" NPS Plug	Brass
P64-1-AL	Cover Plate w/ 1" NPS Plug	Aluminum
P64-1-1/4	Cover Plate w/ 1¼" NPS Plug	Brass
P64-1-1/4-AL	Cover Plate w/ 1¼" NPS Plug	Aluminum
P64-2	Cover Plate w/ 2" UN plug, Brass	
P64-2-AL	Cover Plate w/ 2" UN plug	Aluminum
P64-1/2-2	Cover Plate w/ 2" UN & ½" NPS plugs	Brass
P64-1/2-2-AL	Cover Plate w/ 2" UN & ½" NPS plugs	Aluminum
P64-3/4-2	Cover Plate w/ 2" UN & ¾" NPS plug	Brass
P64-3/4-2-AL	Cover Plate w/ 2" UN & ¾" NPS plug	Aluminum
P64-2-5/8	Cover Plate w/ 2⅝" UN plug	Brass
P64-2-5/8-AL	Cover Plate w/ 2⅝" UN plug	Aluminum
P64-DU	Cover Plate w/ Two 1 7⁄16" Plugs for Duplex	Brass
P64-DU-AL	Cover Plate w/ Two 1 7⁄16" Plugs for Duplex	Aluminum
P64-DS	Cover Plate w/ Two Flip Lids for Duplex	Brass
P64-DS-AL	Cover Plate w/ Two Flip Lids for Duplex	Aluminum
P64-GFCI	Cover Plate w/ One Flip Lid for GFCI	Brass

Nonmetallic Covers

Cat. No.	Description	Color
P64P-URC-BGE	Universal Cover Plate for Duplex & GFCI	Beige
P64P-URC-BLK	Universal Cover Plate for Duplex & GFCI	Black
P64P-URC-GRY	Universal Cover Plate for Duplex & GFCI	Gray
P64P-BP-BGE	Blank Cover Plate	Beige
P64P-BP-BLK	Blank Cover Plate	Black
P64P-BP-GRY	Blank Cover Plate	Gray



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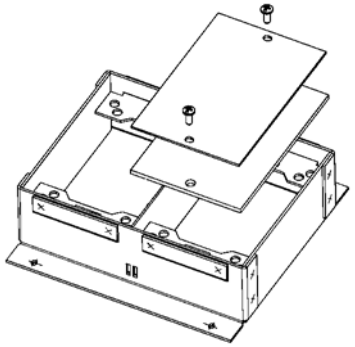
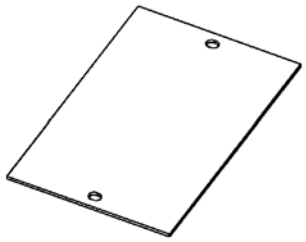


Afterset Inserts

Cat. No.	Description	Insert Height
DAIFA-1G-3	1-Gang Afterset Insert	3"
DAIFA-1G-2	1-Gang Afterset Insert	2"
DAIFA-1G-15	1-Gang Afterset Insert	1½"
DAIFA-2G-3	2-Gang Afterset Insert	3"
DAIFA-2G-2	2-Gang Afterset Insert	2"
DAIFA-2G-15	2-Gang Afterset Insert	1½"
DAIFA-3G-3	3-Gang Afterset Insert	3"
DAIFA-3G-2	3-Gang Afterset Insert	2"
DAIFA-3G-15	3-Gang Afterset Insert	1½"

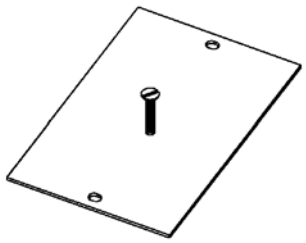
Provides means to add activation inserts in the field after installation of the duct.
Material: 14 gauge pre-galvanized steel



Compartment Cover

Cat. No.	Description
FAD-CC	Compartment Cover

Provides means to cover the opening in the duct which provides access compartment wiring. Wiring from a different compartment can then be routed into the gang and activated (used when multiple outlets of the same service are required at the same insert location).
Material: 18 gauge pre-galvanized steel



Marker Caps

Cat. No.	Description
FAD-MC-Z	Insert Marker Cap with Zinc Screw
FAD-MC-B	Insert Marker Cap with Brass Screw

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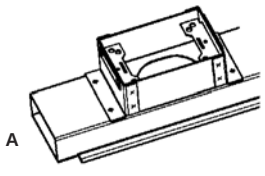
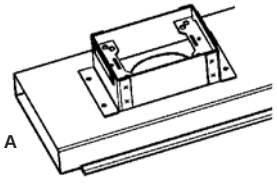
Wirefill Chart

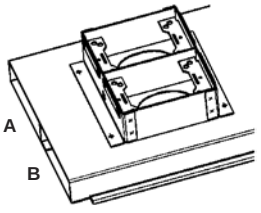
				201	201W	202		203F		
				CHANNEL A	CHANNEL A	CHANNEL A	CHANNEL B	CHANNEL A	CHANNEL B	CHANNEL C
CHANNEL CROSS SECTIONAL AREA (SQUARE INCHES):				**4.38**	**7.78**	**6.60**	**6.60**	**5.90**	**4.07**	**5.90**
COAX CABLES	RG6 /u	DIA. = 0.270"	40% FILL	30	54	46	46	41	28	41
	RG11 /u	DIA. = 0.405"	40% FILL	13	24	20	20	18	12	18
	RG58 /u	DIA. = 0.193"	40% FILL	60	106	90	90	80	55	80
	RG59 /u	DIA. = 0.242"	40% FILL	38	67	57	57	51	35	51
	RG62A /u	DIA. = 0.242"	40% FILL	38	67	57	57	51	35	51
LAN CABLES	CAT5, 4 pr. UNSHIELDED	DIA. = 0.250"	40% FILL	35	63	53	53	48	33	48
FIBER OPTIC CABLES 62.5 /125 um	2 STRAND	DIA. = 0.175"	40% FILL	73	129	110	110	98	67	98
	4 STRAND	DIA. = 0.175"	40% FILL	73	129	110	110	98	67	98
	6 STRAND	DIA. = 0.210"	40% FILL	50	89	76	76	68	47	68
SIGNAL CABLES	18 AWG	DIA. = 0.066"	40% FILL	515	915	776	776	694	478	694
	20 AWG	DIA. = 0.057"	40% FILL	700	1240	1050	1050	944	650	944
	22 AWG	DIA. = 0.050"	40% FILL	922	1630	1380	1380	1240	856	1240
	24 AWG	DIA. = 0.044"	40% FILL	1160	2070	1760	1760	1570	1080	1570
POWER (THHN)	10 AWG	DIA. = 0.164"	40% FILL	83	147	125	125	111	77	111
	12 AWG	DIA. = 0.130"	40% FILL	132	235	200	200	178	123	178
	14 AWG	DIA. = 0.111"	40% FILL	182	324	275	275	245	169	245



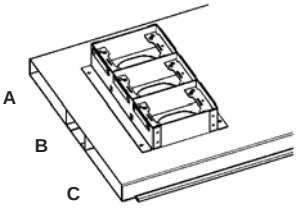
201 Series
Single Compartment



201W Series
Wide Single Compartment



202 Series
Two Compartment



203F Series
Three Compartment

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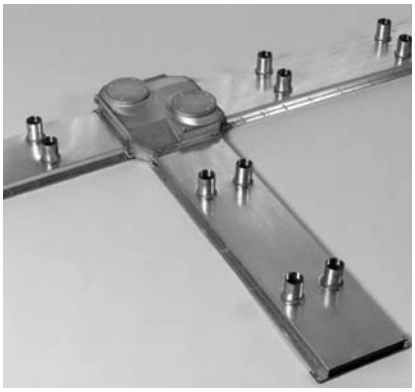
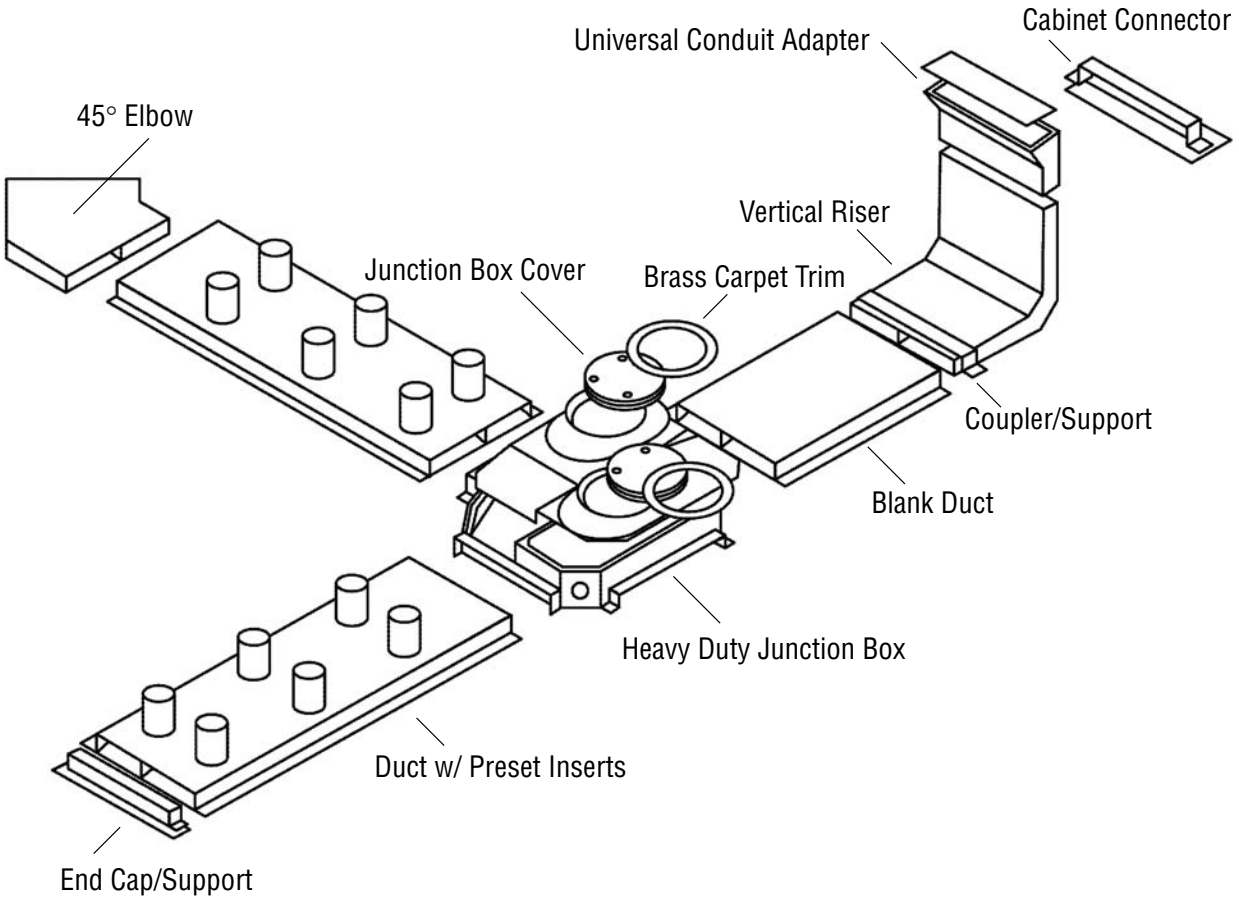
Steel City®
Casino Underfloor Duct



Features & Benefits

- Heavy Duty cast aluminum junction box meets the high load requirements of a casino environment (50,000 pound uniform load rating).
- Two-compartment duct provides separation of power and voice/data.
- Junction box provides individual covers for access to power and voice/data compartments.
- Attractive brass carpet trims are available for the junction box covers.
- One-piece duct configuration simplifies assembly and leveling for reduced installation costs.
- System includes a complete line of accessories and fittings for design flexibility.
- System meets the requirements of UL 884.

Typical Casino Duct System Layout



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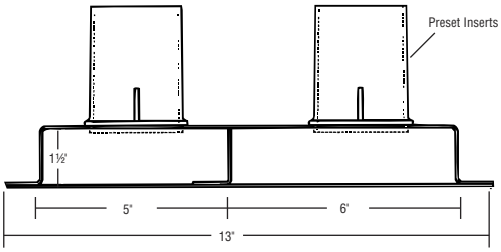
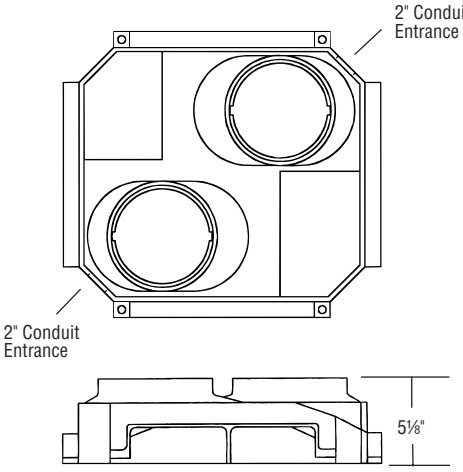


CD-B120

Duct Sections

Cat. No.	Description
CD-B120	Blank duct 10' section Duct with 3" presets - 24" on center, 10' section Cat. No. CD-324120

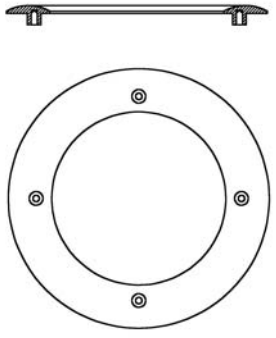
NOTE: Consult factory for Casino Duct with Flush Activations.



CD-3JB

Junction Box

Cat. No.	Description
CD-3JB	Heavy-duty cast aluminum junction box, 2 compartment.



CD-CTB

Brass Carpet Trim

Cat. No.	Description
CD-CTB	Brass trim ring for junction box lids.

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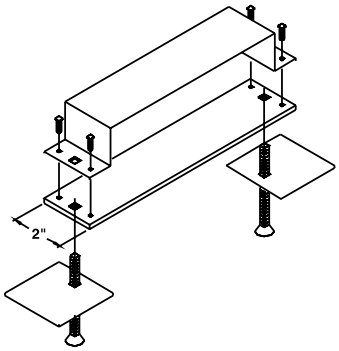
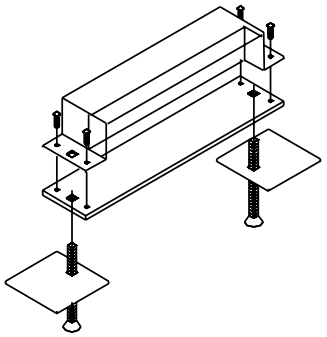


Coupler/Supports

Cat. No.	Description
CD-CS	For Casino Duct

Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668

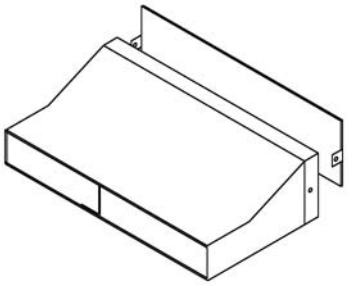
Steel City duct coupler/supports provide a means of not only coupling duct sections together but also supporting the duct sections. It is recommended that a support/coupler be used every 5' of duct run.



End Cap/Support

Cat. No.	Description
CD-ES	For Casino Duct

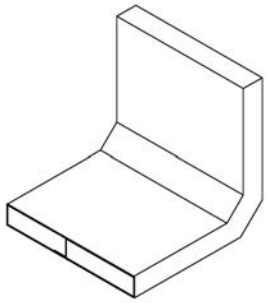
Steel City End Cap/Supports provide a means of supporting and closing unused duct ends.
Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668



Conduit Adapter

Cat. No.	Description
CD-UCA	For Casino Duct

Steel City End Conduit Adapters are provided with a removable blank cover which is field punched for the required combination of conduits. Conduit adapters for multi-compartment duct are supplied with interior barriers to maintain separation between services.
Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668



Verticle Riser

Cat. No.	Description
CD-VEL	For Casino Duct

Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668

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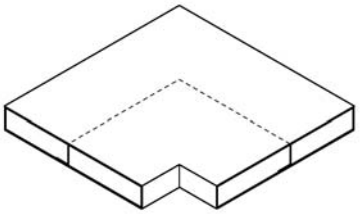
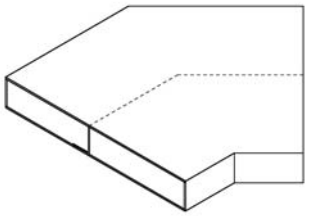


Horizontal Elbow – 90°

Cat. No.	Description
CD-HB90	For Casino Duct

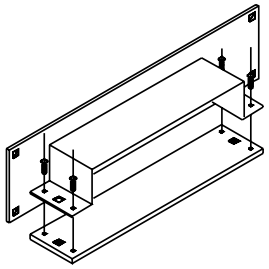
Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668



Horizontal Elbow – 45°

Cat. No.	Description
CD-HB45L	45° Elbow Left
CD-HB45R	45° Elbow Right

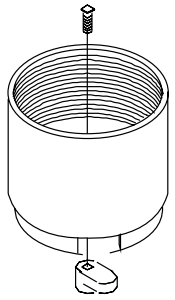
Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668



Duct Cabinet Connector

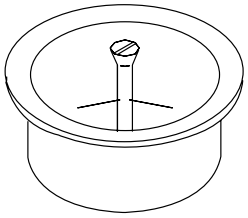
Cat. No.	Description
CD-CC	For Casino Duct

Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668



Afterset Insert – 2" IPS Thread

Cat. No.	Description
DAI-3	3"



Marker Caps

Cat. No.	Description
DMC-Z	Insert marker cap with zinc screw
DMC-B	Insert marker cap with brass screw

Material: 14 gauge pre-galvanized steel with 668 coating
UL Listing No. 668

Reducing Bushings

Cat. No.	Description
RB-162	2" to ¾"
RB-163	2" to 1"

Material: Steel, Zinc Plated
UL Listing No. E-1275

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Service Head Fittings

Steel City service fittings provide above-floor service for power, communications and data. A variety of service fitting designs are available.

SFH-40-RG

SFH-40 Series

- ***Brushed aluminum finish.***
- ***Low profile design.***
- ***Furnished with 1" conduit nipple.***

SFH-50-2RG

SFH-50 Series

- ***Brushed aluminum finish.***
- ***Interchangeable face plates.***
- ***Furnished with 1" conduit nipple for direct screw-threading into a floor box plate with 1" cover opening.***

Service Fittings for Power

Cat. No.	Description	Finish	Dimensions W	D	H	Wt. (lbs.)
SFH-40-RG	Furnished with one 15 amp, 125 volt, 3-wire NEMA duplex receptacle	Brushed Aluminum	4⅜"	3"	2⅝"	1.6
SFH-40	Same as SFH-40-RG above less duplex receptacle	Brushed Aluminum	4⅜"	3"	2⅝"	1.5
SFH-50-2RG	Furnished with two back to back 15 amp, 125 volt, 3 wire NEMA duplex receptacles	Brushed Aluminum	5"	3⅜"	3"	1.38
SFH-50	Same as SFH-50-2RG less duplex receptacles	Brushed Aluminum	5"	3⅜"	3"	1.25
SFH-51	Furnished with cover plate to accommodate one 30 or 50 amp, 240 volt, 3 wire receptacle and blank cover	Brushed Aluminum	5"	3⅜"	3"	1.25

SFH-50 Series Component Parts

SFH-50-BASE	Standard above floor service fitting base only.
SFH-50-TELECOV	Device plate for SFH-50 with 1" dia. hole.
SFH-50-DUPCOV	Device plate for SFH-50 for duplex.
SFH-50-BLCOV	Blank device plate for SFH-50.
SFH-50-CVW11332	Device plate for SFH-50 with 1$\frac{13}{32}$" dia. hole.

UL Listing No. 514A

SFH-50-Base

Blank Plate SFH-50-BLCOV

Telephone Plate, 1" Hole SFH-50-TELECOV

Single Receptacle Plate, 1.39" Hole SFH-50-CVW11332

Single Receptacle Plate, 1.60" Hole SFH-50-CVW11932

Duplex Receptacle Plate SFH-50-DUPCOV

SFL-10

- ***Brushed aluminum finish.***
- ***Low profile design.***
- ***Furnished with 1" conduit nipple.***

Service Fittings for Communications and Data

Cat. No.	Description	Finish	Dimensions W	D	H	Wt. (lbs.)
SFL-10	¾" x 1⅛" bushed opening for telephone or computer	Brushed Aluminum	4⅜"	3⅛"	2⅝"	1.5

UL Listing No. 514A

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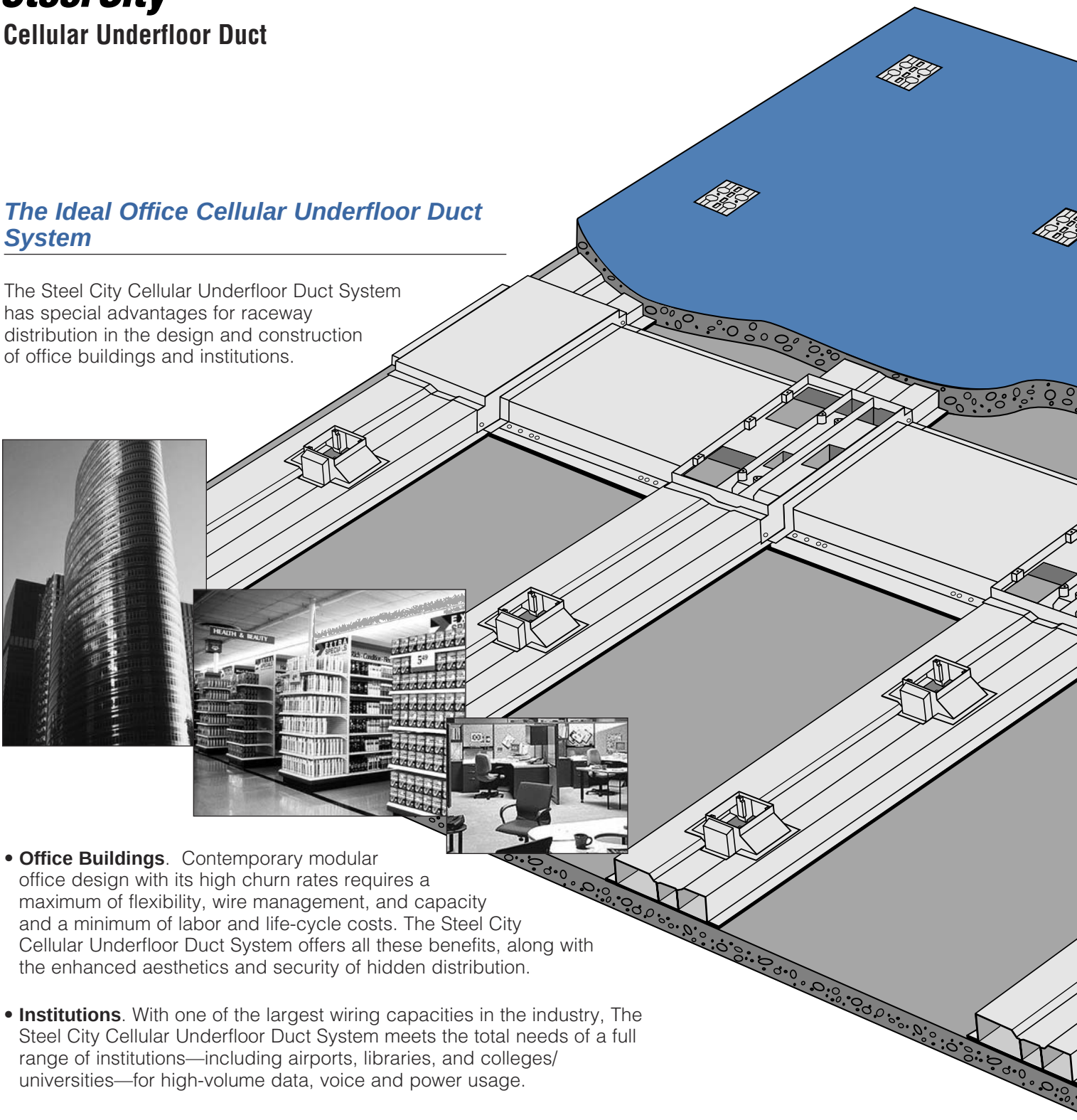
Steel City®
Cellular Underfloor Duct

The Ideal Office Cellular Underfloor Duct System

The Steel City Cellular Underfloor Duct System has special advantages for raceway distribution in the design and construction of office buildings and institutions.



- **Office Buildings**. Contemporary modular office design with its high churn rates requires a maximum of flexibility, wire management, and capacity and a minimum of labor and life-cycle costs. The Steel City Cellular Underfloor Duct System offers all these benefits, along with the enhanced aesthetics and security of hidden distribution.

- **Institutions**. With one of the largest wiring capacities in the industry, The Steel City Cellular Underfloor Duct System meets the total needs of a full range of institutions—including airports, libraries, and colleges/universities—for high-volume data, voice and power usage.

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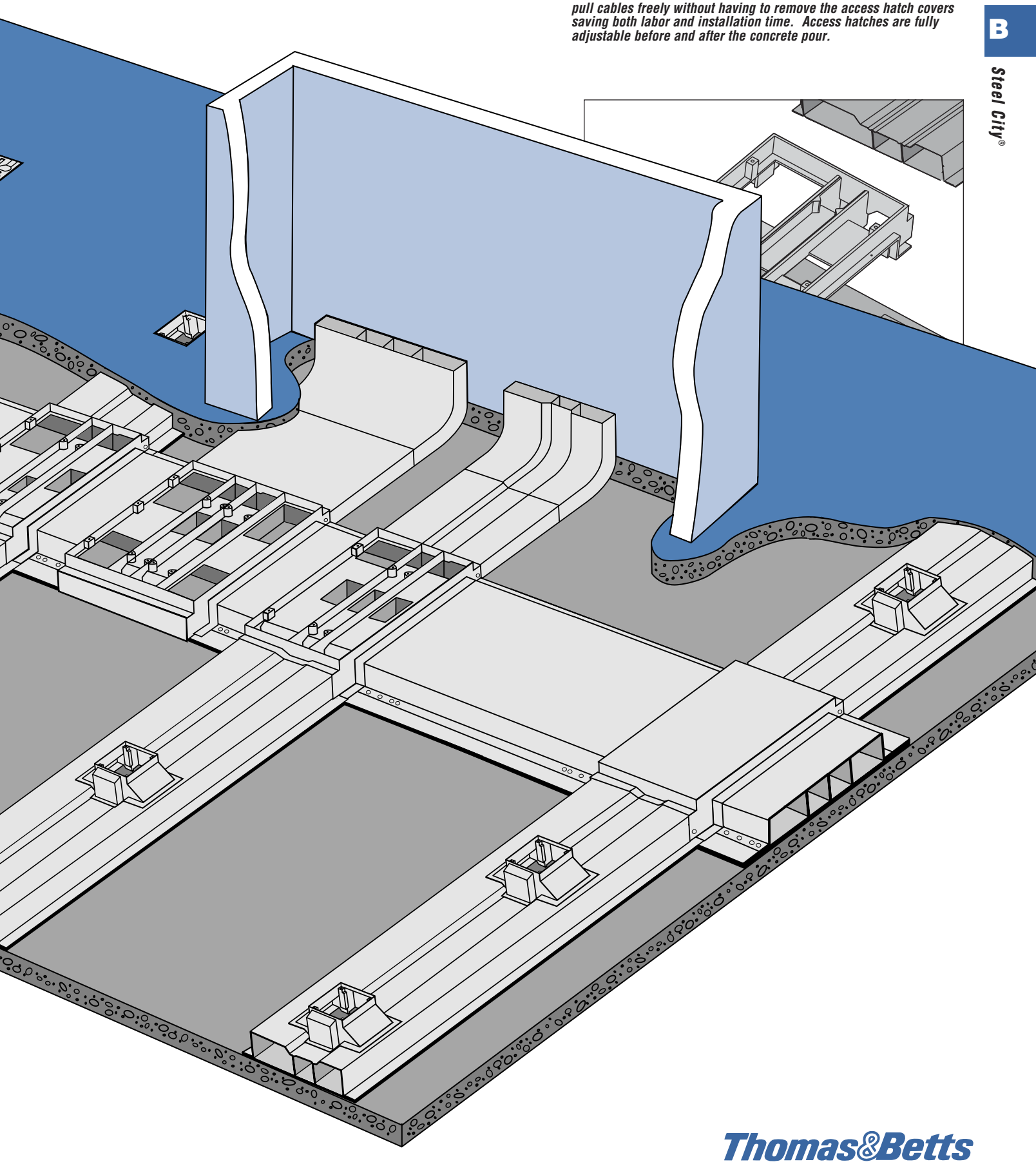
Access Hatches are attached to the header duct at the factory and provide easy access to the interior of the header for pulling cables and making perpendicular directional changes. The access hatches are specially designed to maintain separation between services without interior barriers and crossover tunnels. The installer can pull cables freely without having to remove the access hatch covers saving both labor and installation time. Access hatches are fully adjustable before and after the concrete pour.



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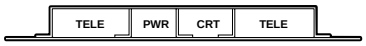
The Steel City Cellular Underfloor Duct System includes three primary components:

- Four-compartment header duct.
- Header duct access hatches.
- Three compartment cell duct with preset inserts.



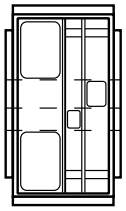
Header Duct

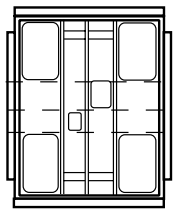
Header Duct

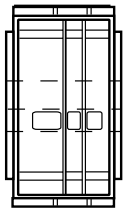
Header Duct provides convenient, labor-saving access to duct intersections through a unique access hatch design, eliminating the need for cumbersome junction boxes.

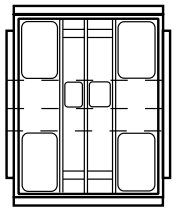
- Provides 4 compartments: 1 for power, 2 for telephone, 1 for data/voice.
- Constructed of galvanized steel.
- Offers precut lengths for 5 or 6 module spacings with access hatches factory installed.
- Available without access hatches for longer runs (also available in custom lengths).
- Ideal for applications requiring maximum capacities for power, telephone and data requirements.
- UL Listed No. 209.

Access Hatches


AH1


AH2


AH3


AH4

Access Hatches are attached to the header duct at the factory and provide easy access to the interior of the header for pulling cables and making perpendicular directional changes. The access hatches are specially designed to maintain separation between services without interior barriers and crossover tunnels. The installer can pull cables freely without having to remove the access hatch covers saving both labor and installation time. Access hatches are fully adjustable before and after the concrete pour.

- ¼" thick steel cover. (optional aluminum)
- All openings are cast into the hatch, eliminating rough edges and reducing wire abrasion during pulling.

Four types of access hatches are available:

- **Header to Cell (AH1).** Used at intersections between perpendicular runs of header duct and cell duct.
- **Header to Header (AH2).** Used at intersections between perpendicular runs of header duct.
- **Header to Power Closet (AH3).** Used at locations where header is fed from a power closet with cell duct. This header provides access to all three services running from the power panel to the access hatch, reducing the number of required feeds.
- **Header to Tele/Communications Closet (AH4).** Used at locations where header is fed from a tele/communications closet with header duct. This header provides access to all three services running from the communications panel to the access hatch, reducing the number of required feeds.

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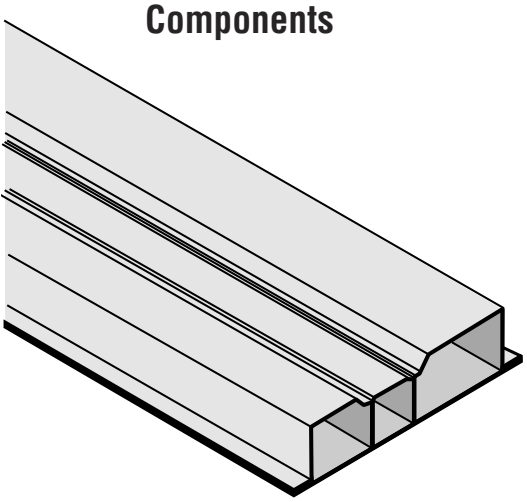


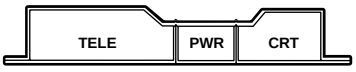
Cell Duct

Steel City Cell Duct is available in both shallow and standard versions. Both systems are roll-formed with the interior vertical dividers integrally formed in the duct, eliminating welding in the wireways and reducing potential conductor abrasion.

The shallow system is ideal for renovation applications, requiring only 3" of concrete fill. Standard cell duct is for installations allowing for concrete fills 3½" and deeper. Both versions provide three services in one 12"-wide unit, featuring factory-installed, die-cast preset inserts at 24", 30" or 60" intervals.

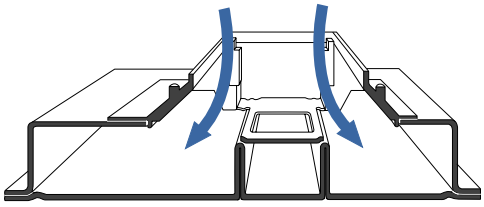
Shallow Cell Duct

- Three Compartments: 2 for telephone and data/voice, 1 for power.
- Factory Installed zinc die-cast inserts.
- Manufactured from galvanized steel.
- Roll formed.
- U.L. Listed.
- Available blank or with preset inserts at 24", 30" or 60" intervals. Custom spacing is available (consult the factory).
- 10' lengths. Custom lengths are available (consult the factory).



Standard Cell Duct

The Steel City standard cell duct is ideal for most applications from slab on grade to upper-level floors. The middle compartment is designed ½" lower than the outside compartments, providing a larger, more accessible opening at the insert location.



- Three Compartments: 2 for telephone and data/voice, 1 for power.
- Factory Installed zinc die-cast inserts.
- Manufactured from galvanized steel.
- Roll formed.
- U.L. Listed.
- Available blank or with preset inserts at 24", 30" or 60" intervals. Custom spacing is available (consult the factory).
- 10' lengths. Custom lengths are available (consult the factory).

Steel City offers a total package of accessories and floor fittings, making the Steel City Cellular Underfloor Duct System one of the most complete product lines in the industry.

- Cabinet Connectors.
- Couplings.
- End Caps.
- Floor Fittings.

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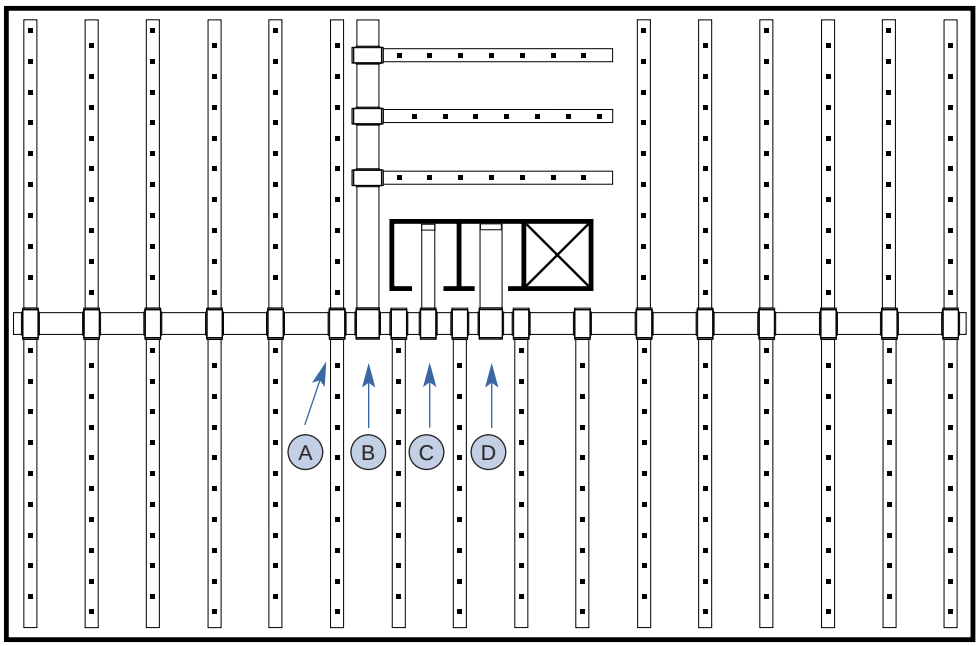
How To Order

Steel City Cellular Underfloor Duct System components are:

1. Access Hatch for Header to Cell (AH-1)
2. Header
3. Vertical Elbow to Telecom/Data Closet
4. Transfer Header for Telecom/Data
5. Access Hatch for Telecom/Data (AH-4)
6. Access Hatch for Header to Header Junction
7. Vertical Elbow to Power Closet
8. Transfer Cell for Power
9. Access Hatch to Power Closet (AH-3)
10. Preset Insert



Typical installation

A. AH-1 Header to Cell
B. AH-2 Header to Header
C. AH-3 Header to Power Closet
D. AH-4 Header to Tele/Data Closet

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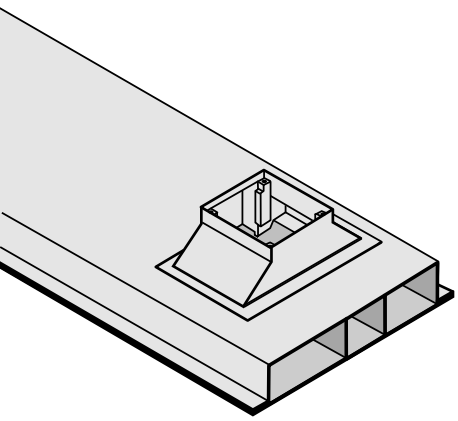
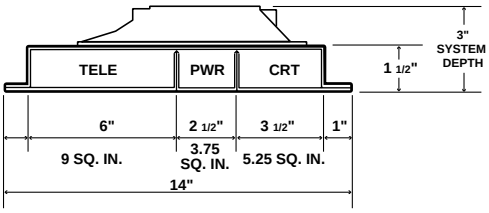
Steel City®
Cellular Underfloor Duct



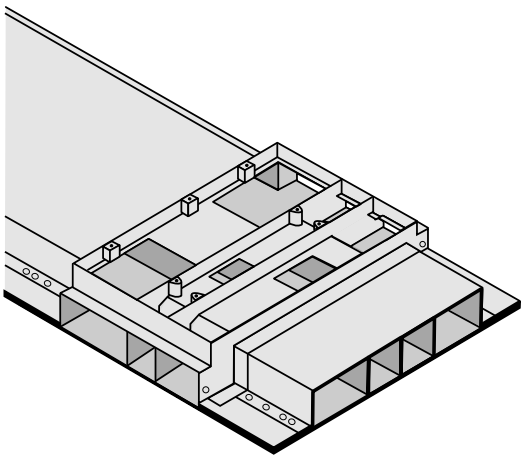
Shallow Cell Duct – 1½" Deep

Cat. No.	System Depth	Insert Spacing	Cell Length
C15-B-120	3"	No Inserts	10'
C15-3-24-120	3"	24"	10'
C15-3-30-120	3"	30"	10'
C15-3-60-120	3"	60"	10'

Material: 20 gauge pre-galvanized steel.
UL Listing No. 209



Numbering System:
C15 - 3 - 24 - 120
Cell Height | System Depth | Insert Spacing | Length (in.)

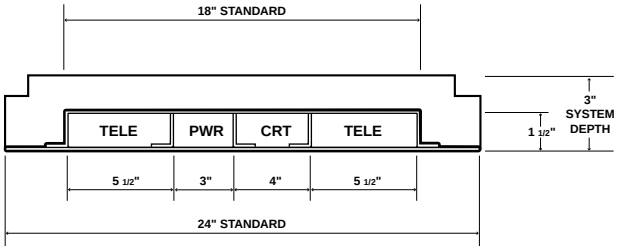


Shallow Header Duct

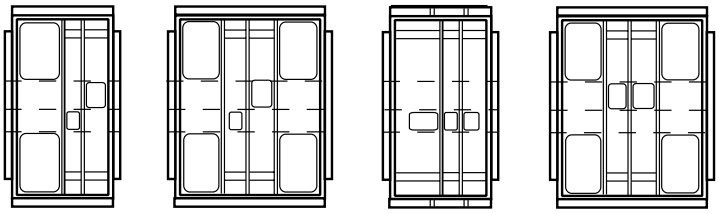
Shallow Header Duct

Cat. No.	System Depth	Hatch Type	*Module Spacing
H15-3-AH1-60	3"	Header to Cell	60"
H15-3-AH1-72	3"	Header to Cell	72"
H15-3-AH1-J	3"	Header to Cell Junction	–
H15-3-AH2-J	3"	Header to Header Junction	–
H15-3-AH3-J	3"	Header to Cell Power Closet Junction	–
H15-3-AH4-J	3"	Header to Header Telephone Closet Junction	–
H15-B-60	3"	Blank Header – No Access Hatch	–
H15-B-72	3"	Blank Header – No Access Hatch	–

Material: 16 gauge pre-galvanized steel.
UL Listing No. 209



Numbering System:
H15 - 3 - AH1 - 72
Header Height | System Depth | Hatch Type | Module Spacing



*Module spacing equals center-to-center distance between access hatches and cell duct runs.

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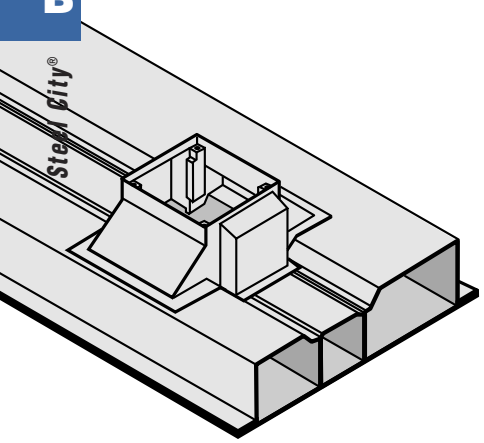
Steel City®
Cellular Underfloor Duct

B

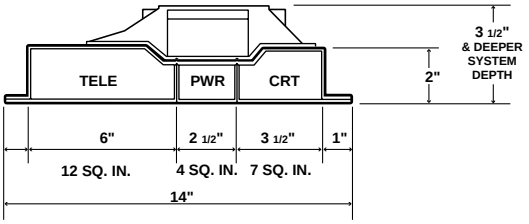


Standard Cell Duct

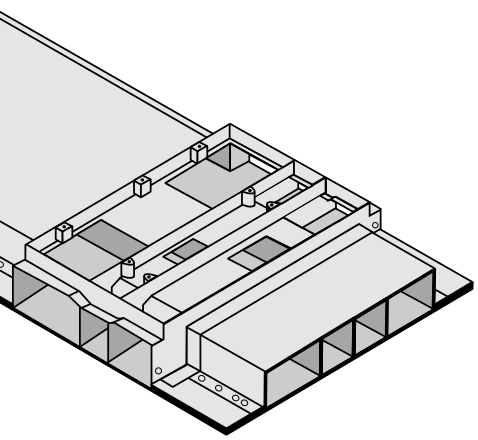
Standard Cell Duct – 2" Deep

Cat. No.	System Depth	Insert Spacing	Cell Length
C20-35-24-120	3½"	24"	10'
C20-4-24-120	4"	24"	10'
C20-45-24-120	4½"	24"	10'
C20-5-24-120	5"	24"	10'
C20-35-30-120	3½"	30"	10'
C20-4-30-120	4"	30"	10'
C20-45-30-120	4½"	30"	10'
C20-5-30-120	5"	30"	10'
C20-35-60-120	3½"	60"	10'
C20-4-60-120	4"	60"	10'
C20-45-60-120	4½"	60"	10'
C20-5-60-120	5"	60"	10'
C20-B-120		No Inserts	10'

Material: 20 gauge pre-galvanized steel.
UL Listing No. 209



Numbering System:
C20 - 4 - 24 - 120
Cell Height | System Depth | Insert Spacing | Length (in.)

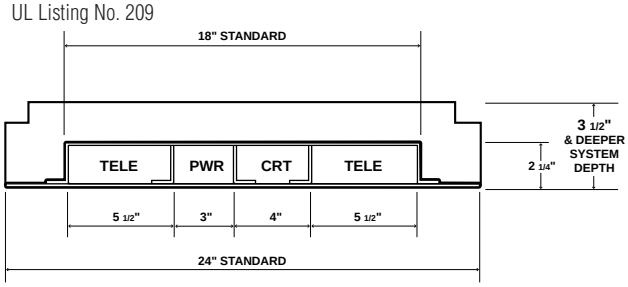


Standard Header Duct

Standard Header Duct

System Cat. No.	System Depth	Hatch Type	*Module Spacing
H20-35-AH1-60	3½"	Header to Cell	60"
H20-4-AH1-60	4"	Header to Cell	60"
H20-45-AH1-60	4½"	Header to Cell	60"
H20-5-AH1-60	5"	Header to Cell	60"
H20-35-AH1-72	3½"	Header to Cell	72"
H20-4-AH1-72	4"	Header to Cell	72"
H20-45-AH1-72	4½"	Header to Cell	72"
H20-5-AH1-72	5"	Header to Cell	72"

Material: 16 gauge pre-galvanized steel.
UL Listing No. 209



Numbering System:
H20 - 4 - AH1 - 60
Header Height | System Depth | Hatch Type | Module Spacing

*Module spacing equals center-to-center distance between access hatches and cell duct runs.

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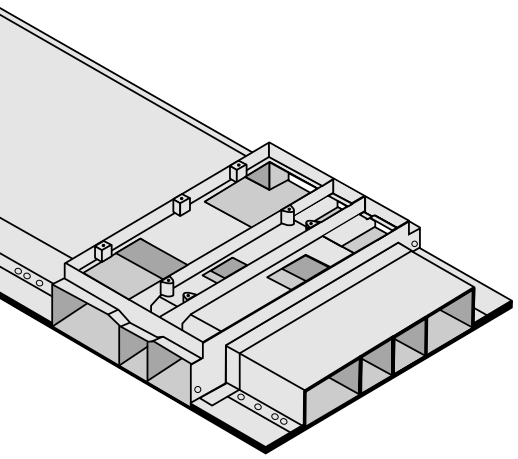
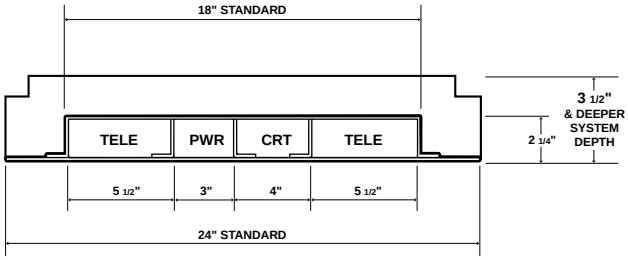


Standard Header Duct

Standard Header Duct (Continued)

System Cat. No.	System Depth	Hatch Type
H20-35-AH1-J	3½"'	Header to Cell Junction – 30" length
H20-4-AH1-J	4"	Header to Cell Junction – 30" length
H20-45-AH1-J	4½"	Header to Cell Junction – 30" length
H20-5-AH1-J	5"	Header to Cell Junction – 30" length
H20-35-AH2-J	3½"	Header to Header Junction – 30" length
H20-4-AH2-J	4"	Header to Header Junction – 30" length
H20-45-AH2-J	4½"	Header to Header Junction – 30" length
H20-5-AH2-J	5"	Header to Header Junction – 30" length
H20-35-AH3-J	3½"	Header to Cell Power Closet Junction – 30" length
H20-4-AH3-J	4'	Header to Cell Power Closet Junction – 30" length
H20-45-AH3-J	4½"	Header to Cell Power Closet Junction – 30" length
H20-5-AH3-J	5'	Header to Cell Power Closet Junction – 30" length
H20-35-AH4-J	3½"	Header to Header Duct Telephone Closet Junction – 30" length
H20-4-AH4-J	4'	Header to Header Duct Telephone Closet Junction – 30" length
H20-45-AH4-J	4½"	Header to Header Duct Telephone Closet Junction – 30" length
H20-5-AH4-J	5'	Header to Header Duct Telephone Closet Junction – 30" length
H20-B-60	–	Blank Header
H20-B-72	–	Blank Header

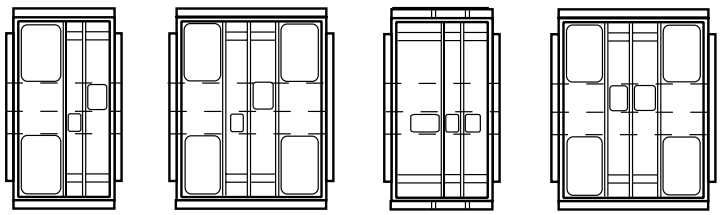
Material: 16 gauge pre-galvanized steel.
UL Listing No. 209



Numbering System:

H20 - 4 - AH1 - 60

Header Height | System Depth | Hatch Type | Module Spacing



AH1 AH2 AH3 AH4

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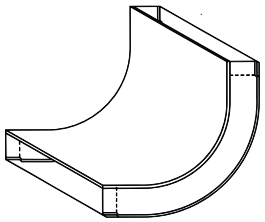
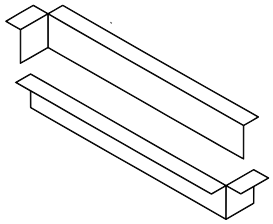


Vertical Elbows

Cat. No.	Description
C15-VEL	1½" deep cell vertical elbow
H15-VEL	1½" deep header vertical elbow
C20-VEL	2" deep cell vertical elbow
H20-VEL	2" deep header vertical elbow

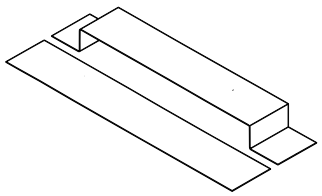
Attaches to cell, provides transition to closet.
16 gauge elbow is cast Aluminum. Cover plate is 16 gauge galvanized. UL Listing No. 209



Cabinet Connectors

Cat. No.	Description
C15-CC	1½" deep cell cabinet connector
H15-CC	1½" deep header cabinet connector
C20-CC	2" deep cell cabinet connector
H20-CC	2" deep header cabinet connector

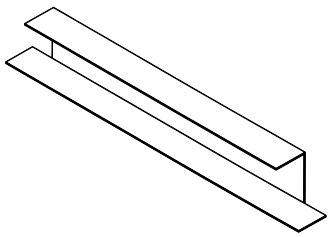
Slides into place, provides a flange for connections to cabinets.
16 gauge pre-galvanized steel. UL Listing No. 209



Coupler

Cat. No.	Description
C15-CS	1½" deep cell coupler
H15-CS	1½" deep header coupler
C20-CS	2" deep cell coupler
H20-CS	2" deep header coupler

Serves as an adapter to join two sections of cell duct.
16 gauge pre-galvanized steel. UL Listing No. 209



End Cap

Cat. No.	Description
C15-ES	1½" deep cell end cap
C20-ES	2" deep cell end cap
H15-ES	1½" deep header end cap
H20-ES	2" deep header end cap

Serves as an end cap for end of cell run.
16 gauge pre-galvanized steel. Cell = 18 gauge, header = 16 gauge. UL Listing No. 209

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Standard Floor Fittings

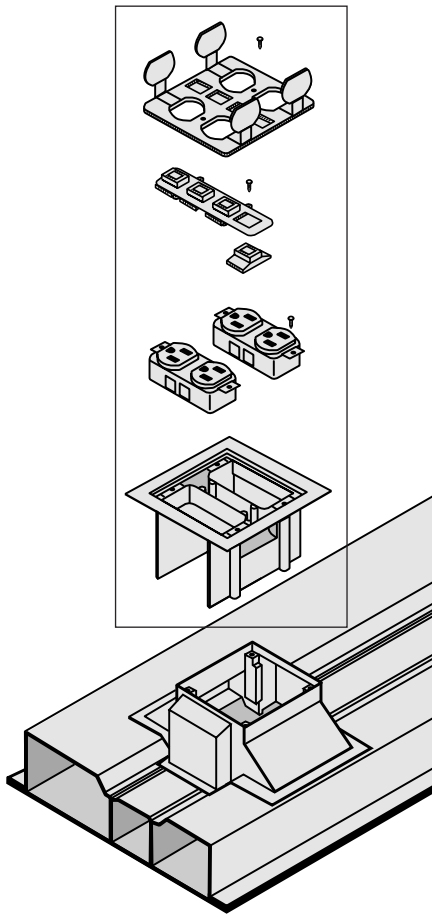
Cat. No.	Description	Duplex Receptacle	Cover Type
FF-2D-AL	Flush floor fitting with cover for 2 duplex and 4 RJ's	2	Brushed Aluminum
FF-PF-Z133	Flush floor fitting, two ¾" power hubs, two ¾" data hubs	–	Brushed Aluminum

All fittings mount out of the standardized pre-set inserts only. Under carpet fittings are mounted flush with the floor.

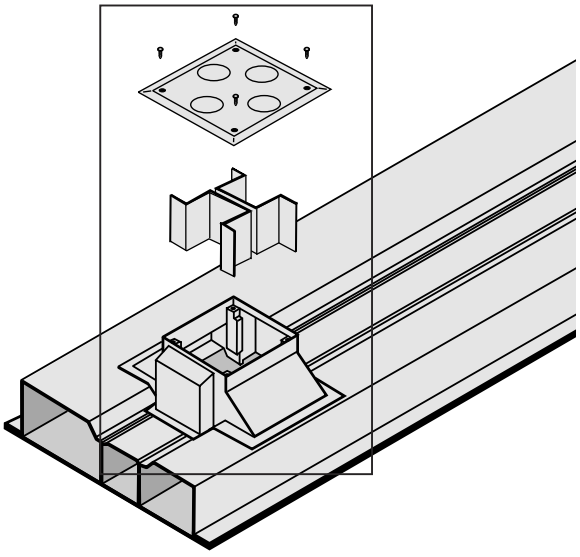
Material: Nonmetallic submerged covers. 16 gauge steel and zinc components.

UL Listing No. 209

FF-2D-AL
(duplex receptacles not included)



FF-PF Z133



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Cellular Underfloor Duct Specifications

Part 1 - GENERAL

1.1 SUMMARY

Work under this section includes all labor and materials which are required for the completion of infloor distribution system, as shown on drawings and as specified. The Conditions of the Contract and Division 1 apply to this section as fully as if repeated herein.

1.1.1 Work includes, but is not necessarily limited to the following principal items.

A. Cellular metal underfloor duct units and accessories.

B. Header duct with access hatches.

C. Activations.

1.2 REFERENCES: The editions of specifications and standards referenced herein, published by the following organizations, apply to the work only to the extent specified by the reference.

Underwriters Laboratories, Inc. (UL)

1.3 QUALITY ASSURANCE:

1.3.1 Standards:

.1 The materials, products and equipment specified in this section establish a standard of quality of required function, dimension, appearance and quality to be met by any proposed substitution.

.2 The manufacturer and installer shall demonstrate a minimum of five years experience with electrified cellular underfloor duct.

1.4 SUBSTITUTIONS:

1.4.1 No substitution will be considered unless written request for approval has been submitted by the bidder and has been received by the Architect at least ten (10) days prior to the date for receipt of bids.

1.4.2 Each such request shall include the name of the materials or equipment for which it is to be submitted and a complete description of the proposed substitute including drawings, cuts, mock-ups, performance and test data, compliance with codes and approvals and any other information necessary for evaluation.

1.5 SUBMITTALS:

1.5.1 Manufacturer's Data: Submit manufacturer's specifications and installation instructions for each product specified. Include manufacturer's certification as may be required to show compliance with these specifications. Indicate by transmittal form that a copy of each instruction has been distributed to the installer.

1.5.2 Shop Drawings:

.1 Submit detailed drawings showing layout of all cellular underfloor duct, shape, dimensions and details as required for proper installation.

.2 Submit header duct, access hatch, riser location and details.

Part 2 - PRODUCTS

2.1 CELLULAR UNDERFLOOR DUCT

2.1.1 Typical module as shown on drawings consisting of a 3 cell, 12" (304.8 mm) wide x 1½" (38.1 mm) deep (nominal) or 12" (304.8 mm) wide x 2" (50.8 mm) deep (nominal) cellular underfloor duct unit.

2.1.2 The 3 cells shall be contiguous, while complete isolation is maintained between services.

2.1.3 Materials: The cellular underfloor duct units and associated accessories shall be fabricated from steel sheets conforming to ASTM A446, Grade A.

2.1.4 Nominal Cell Capacities for 3 cell cellular underfloor duct units:

C15-Shallow

Power - (3.75 sq. in.) (2419.35mm^2)
Telephone - (9 sq. in.) (8709.6 mm^2)
Data - (5.25 sq. in.) (5080.64 mm^2)

C20-Standard

Power - (3.75 sq. in.) (2419.35 mm^2)
Telephone - (12 sq. in.) (11,612.88 mm^2)
Data - (7 sq. in.) (6774.18 mm^2)

2.1.5 Fabrication:

.1 Cellular underfloor duct units shall be fabricated in 10'-0" (3048 mm) maximum roll formed lengths with top of center compartment ½" lower than outside compartments.

.2 Cellular Underfloor duct shall be manufactured with preset inserts on predetermined locations.

.3 Protective Coating: Galvanizing, ASTM 525 G-60.

.4 Cellular underfloor duct units shall conform to the requirement of UL Standard 209, as electrical raceways.

.5 Cellular underfloor duct units shall be 20 gauge (.9 mm) minimum.

2.1.6 Triple Service Preset Inserts:

.1 Supply one piece preset insert as shown on electrical drawings.

.2 Pre-set inserts shall be UL Listed, integral formed zinc die cast body nominal with 5" (130.2 mm) x 4" (104.8 mm) minimum top entry into preset body. Included with the preset is a minimum .024" (.6 mm) thick steel closure cap having surface treated with a non-corrosive UL Recognized Coating. The minimum thickness of the preset body shall be .049 (1.2 mm) inches.

.3 The preset unit shall be capable of housing Data Connectors (i.e. IBM Type II LAN), Telephone Connectors (i.e. Suttle duplex devices), and two (2) duplex receptacles in a recessed location. Alternatively, a flush receptacle, with a duplex receptacle, telephone, and data connection in a recessed location shall be available. Preset shall access all 3 service compartments from above at one location, and no connections shall negatively impact the square inch capacity of any compartment.

2.2 STANDARD HEADER DUCT

2.2.1 Typical module as shown on drawings consisting of a 4 compartment, minimum 2¼" (57.15mm) deep x 18" (457.2mm) wide single level duct.

2.2.2 Materials: The cellular underfloor duct units and associated accessories shall be fabricated from steel sheets conforming to ASTM A446, Grade A.

2.2.3 Minimum nominal capacities for 4 compartment header duct: 2 @ 12.4 sq. in.^{2} (315 mm^2)

2.2.4 Access to the header duct shall be limited to isolated access hatch openings, in accordance with

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distribution raceway modules. There shall not be a continuous coverplate along the length of the header raceway.

2.2.5 Fabrication:

.1 Header duct unit shall be fabricated in lengths as required to establish distribution module.

.2 Protective Coating: Galvanizing, ASTM 525 G-60.

.3 Header units shall conform to the requirement of UL Standard 209, as electrical raceways, and shall be 16 (1.5 mm) ga. minimum.

.4 Power tunnel shall not be required. Isolation of power and tele/data cables shall be maintained in cast header access hatch. The use of power tunnels in header duct will not be permitted.

.5 Removable access hatch covers: Conforming to UL Standard 209, minimum thickness shall be ¼" (6.4 mm) thick and 12⅛" (308 mm) wide x 21⅝" (549.3 mm) long or 1/4" (6.4 mm) thick. Leveling screws beneath the cover plate shall provide for ⅜" (9.5 mm) upward adjustment after the concrete pour.

2.3 ACTIVATION KITS

2.3.1 Supply activation assembly in quantities equal to 15% of the supplied preset inserts (or as required).

2.3.2 Activation assemblies shall consist of covers, partitions, adjusting rings, device mounting brackets and access plates at locations directed by owner/architect/engineer.

2.3.3 Manufacturer shall supply recessed activation kits (RF) or flush activation kits (FF) in accordance with specified design requirements.

2.3.4 Manufacturer shall be capable of supplying a triple service afterset which supplies 3 service activations at one location. Said afterset shall be available for recessed or flush activation.

2.3.5 All activation trim rings shall have vertical angular adjustment to accommodate inconsistencies in the concrete surface.

Part 3 - CONCRETE TOPPING:

3.1.1 Concrete topping shall be as indicated on the drawings and as specified under Section 03300. Concrete containing chlorides from any source shall not be placed over infloor units.

3.1.2 Before concrete placement, make a final inspection of the entire cellular underfloor duct system. Any gaps in the system shall be sealed to prevent mortar or concrete from entering.

3.1.3 Reinforced concrete design shall be in accordance with American Concrete Institute Specifications for Structural Concrete for Buildings (ACI301-72) and ACI Building Code Requirements for Reinforced Concrete (ACI318-83). Concrete placement shall follow proper and accepted industry practice and be in accordance with ACI Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete (ACI304-73).

3.1.4 Shrinkage and temperature reinforcement above the Cellular Underfloor duct system shall be in accordance with ACI 318-83. Care shall be taken during concrete placement and, in particular, during concrete vibration, to prevent rising of top reinforcement within the slab.

3.1.5 Contractors placing the concrete shall carefully hand finish a minimum of 24" (609.6 mm) adjacent to header duct access hatch openings, so that the top of finished concrete and access hatch openings are flush.

3.2 CELLULAR UNDERFLOOR DUCT AND HEADER DUCT INSTALLATION

3.2.1 Install distribution raceway system and accessories in accordance with the manufacturer's recommendation, installation instructions, the final installation drawings and as herein specified.

3.2.2 Place raceway system on the supporting framework, compacted fill or slab and adjust to final position with proper end bearing and alignment at the butt joints before permanent fastening. Electrical module lines shall be laid out on the concrete base in each building bay and the raceway units shall be located in strict accordance with the electrical drawings in order to maintain the electrical module spacing.

3.2.3 Slide cell duct into access hatch and attach with ¼-20 screws provided. Couple each header duct with couplings provided.

3.2.4 Permanently fasten the raceway to the supporting framework with screws and nails.

3.2.5 The raceway distribution system shall be installed so the top of the presets are ⅛ (3.2 mm) inch to ⅜ (9.5 mm) inch below the screed line.

3.2.6 Install all cell and header risers using tack welds, pop rivets or screws. No sharp edges or screws shall penetrate into the raceway system, as per UL standard.

3.2.7 After placing of concrete fill and before wiring is installed, remove debris and other foreign materials.

3.2.8 If moisture is present, remove 1 cover at each end of header to allow air circulation.

3.3 FIELD QUALITY CONTROL:

3.3.1 Field testing and inspection are specified in Section 01410.

3.3.2 Protection: Protect installation of floor system from damage. Do not allow equipment or heavy traffic over underfloor duct during construction period, without first installing ramps. Ramps shall be designed so that imposed loads are not transferred to headers. Replace components of the system which are damaged during construction, at no cost to the Owner.

Part 4 - MANUFACTURER

4.1 Acceptable Brands:

A. Steel City Cellular Underfloor Duct by Thomas & Betts.

B. Other suppliers must submit 10 days prior for approval.

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Cellular Underfloor Duct Wire Fill Capacity

	3.75 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	58	108	72	155	108
12	42	83	58	113	83
10	34	62	45	71	62

	4.5 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	69	129	86	186	129
12	51	99	69	135	99
10	41	74	54	85	74

	5.25 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	81	151	100	216	151
12	59	116	81	158	116
10	48	86	63	100	86

	6.0 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	92	173	115	247	173
12	68	133	92	180	133
10	55	99	72	114	99

	6.75 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	104	194	129	278	194
12	76	149	104	203	149
10	62	111	81	128	111

	7.0 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	108	201	134	289	201
12	79	155	108	211	155
10	64	115	84	133	115

	8.25 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	127	237	158	340	237
12	93	182	127	248	182
10	76	136	99	156	136

	9.0 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	138	259	172	371	259
12	102	199	138	271	199
10	82	148	108	171	148

	12.375 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	190	356	237	510	356
12	140	273	190	372	273
10	113	204	149	235	204

Number of allowable conductors at 40% fill.

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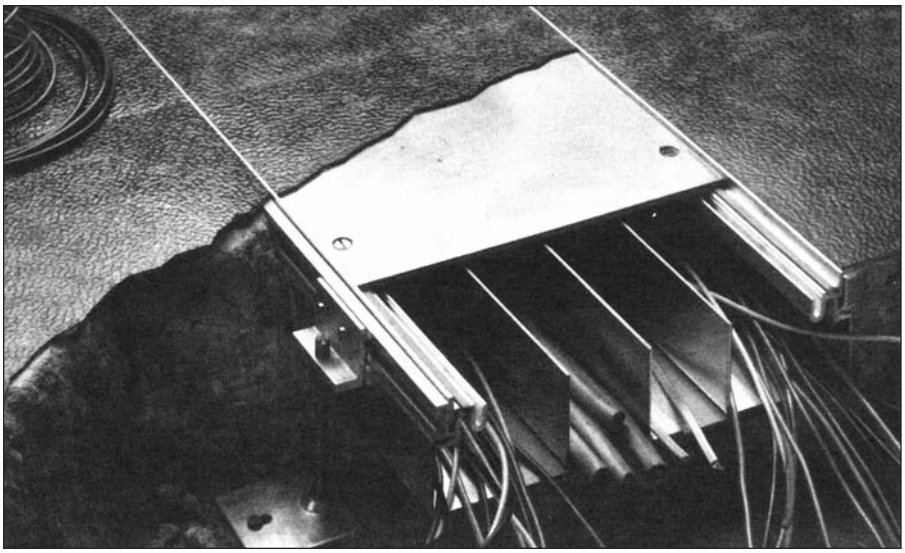
Steel City®
Trench Duct



Features

- High Capacity Duct
- 14 gauge galvanized steel
- Aluminum trim frame
- Total Adjustability
- Standard 3⁄16" steel cover plate
- Threaded groove track
- Feeds Wall Duct systems
- UL Listed No. 884

Applications

- Commercial Buildings
- Retail Outlets
- Office Buildings
- Schools, Universities
- Shopping Centers

A High-Capacity Trench System for In-Floor Wire Management

The Steel City Trench System is an in-floor wire management system that meets today's high-capacity wiring needs that require multiple circuit separation. This system provides the raceways for which power, telecommunication and electronic circuitry can be supplied to multiple point-of-sale checkout counters, particularly those where a scanner is used or may be proposed.

Because of its ability to protect dedicated power circuits to computers as well as distribute general power in the same system, it is ideal for use in all data processing centers. Ample additional capacity for electronic, telecommunications and local area network circuitry is available.

Multiple Compartments Provide More Capacity Than Conventional Ducts

The Steel City trench system provides more capacity than conventional conduits and ducts. It features a single, high-capacity duct with four compartments for easy placement of additional wiring.

Its open-top design allows wiring to be laid in the duct instead of being pulled, eliminating the need for junction boxes. Wiring can be run directly from the top of the duct to the outlet stations, eliminating service fittings that protrude above the floor.

Removable covers are 3⁄16" thick and lock into the track of the trench preventing deflection under heavy loads.

Removable covers allow free access to wiring and can be placed anywhere along the duct for easy wire exit relocation.

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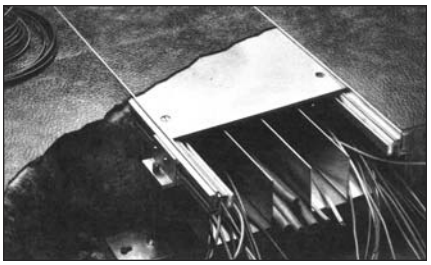
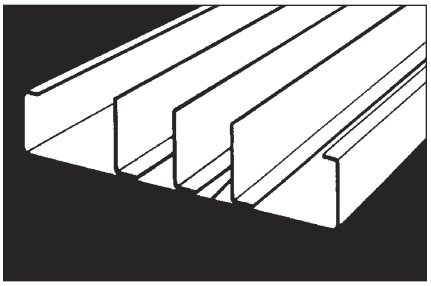


Duct Frame

Duct frame includes fixed metal partitions that create multiple compartments in the duct. This feature permits a single duct to distribute power, electronics and communications. Duct with fewer partitions is available to meet your specifications and can be located in strategic places to meet special distribution requirements.

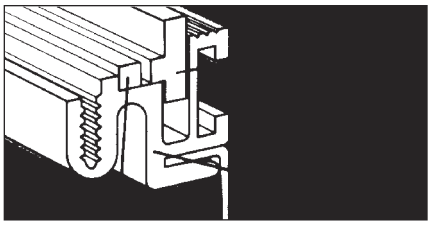
The duct frame is available in a variety of sizes. The frame is of 14 gauge galvanized steel and is supplied in standard 6' lengths. It can be cut to length which increases field flexibility and eliminates the need for ordering specialty fabricated material.



Track

The track of the structural assembly integrates the base aluminum profile with the tile trim, extruded rubber strip, and the duct support assembly. The track also provides the screed line for the concrete.

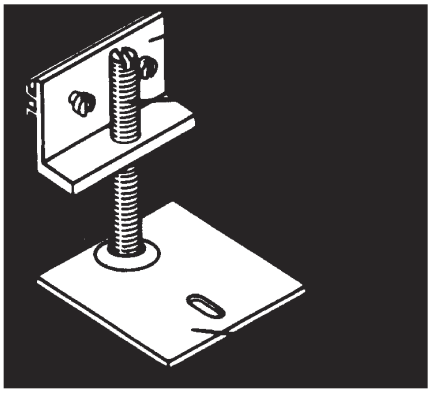
- The aluminum profile accepts and holds the duct frame, rubber cushion, and cover plate screws in addition to supporting the cover plate; it also acts as a runner for the leveling screw clips.



- The aluminum tile trim provides a finished edge for the tile, assists in cutting, and can be reversed when the trim is not required; can be reversed when carpet is used
- The extruded rubber gasket acts as a cushion, sound dampener and moisture barrier between the cover plate and the duct; meets U.L. moptight requirements

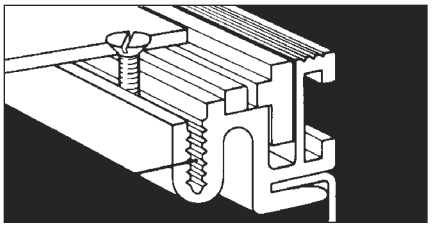
Duct Support Assembly

The unique duct support assembly provides one time leveling capability and acts as a splice for duct sections. The assembly consists of the leveling screw clip, mounting plate, and leveling screws, and is independent of the final support of the duct.



Leveling screw allows for 1½" adjustment.

- The leveling screw clip integrates with the track and provides full adjustment along the length of the duct; it also acts as the splice for duct sections
- The heavy gauge mounting plate fastens duct to metal deck, rough slab, or wood/metal forms prior to pouring concrete; it adjusts to meet most floor and installation requirements.
- The leveling screws provide vertical adjustment of the duct prior to concrete pour; this allows the duct to be leveled to the screed line so only one pour is required



Cover

The cover plates for the Steel City Trench Duct are horizontally adjustable to any point along the duct. The 3⁄16" thick cover plates come in standard 24" lengths—three are provided per 6' duct section. A ¼" thick cover plate is also available as a customer special.

A special threaded groove on the track accepts the cover plate screws at any point along the duct, providing the cover unlimited adjustment. This special design relieves the installer from matching the duct frame sections with the covers, eliminating field cutting in most instances. This can substantially reduce installation and maintenance costs.

The cable exit may be installed on an exit fitting cover allowing cable to be easily pulled out and activated. The cable exit is reversible to provide accessibility from either direction. The standard cover plates may be removed and exit fitting covers installed for the cable exit.

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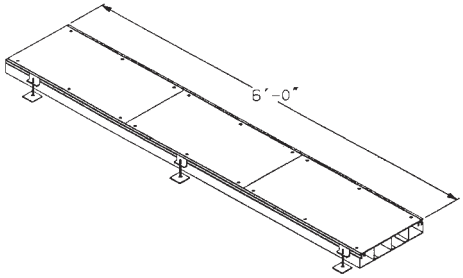
Steel City®
Trench Duct



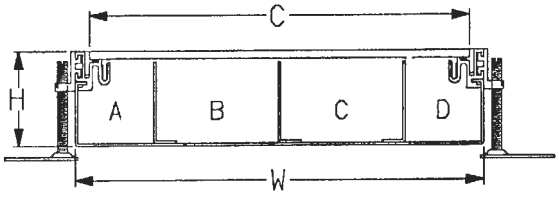
Steel City Trench Duct is manufactured in 6 foot lengths complete with three leveling feet on each side (OK/F-2-1/2), three cover plates 24" long (OKC) and three cover joint protectors (OK/DSD). The leveling feet (screw clips) permit 1" of vertical adjustment and act as section couplers. Additional vertical adjustment is available on order by increasing the length of the screw in the OK/F.

NOTE: All vertical adjustment should be made before the concrete is poured.

Duct Sections

Cat. No.	Cover Width (c)	Outside Dimensions (in.) H	W	Compartment Area (sq. in.) A	B	C	D	Cell Width (in.) A	B	C	D
Four Compartment											
OKA/B12-4C	12	2½	12⅞	5.4	7.8	7.8	5.4	2 13/16	3 7/16	3 7/16	2 13/16
Three Compartment											
OKA/B9-3C	9	2½	9⅞	5.4	9.2	5.4	—	2 13/16	4	2 13/16	—
OKA/B12-3C	12	2½	12⅞	5.4	15.7	5.4	—	2 13/16	7	2 13/16	—
OKA/C12-3C	12	3	12⅞	6.8	19.2	6.8	—	2 13/16	7	2 13/16	—

UL Listing No. 884



OK — / B — 12- — 3C

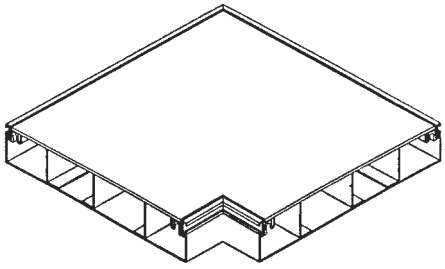
Trench Product
- **OKA—**Trench
- **OKB—**Pull Box
- **OKC—**Exit Cover
- **OKE—**End Cap
- **OKL—**Horizontal L
- **OKR—**Vertical Riser
- **OKT—**"T" Junction
- **OKX—**"X" Junction

*Other depths and widths are available. Please consult factory for details. Also available in Aluminum.

Depth
½" Increments
- A = 2"
- B = 2½"
- C = 3"
- D = 3½"
- E = 4"
- J = 6"

Width
9" & 12" Standard

Number of Compartments
- 1C = 1 compartment
- 2C = 2 compartment
- 3C = 3 compartment
- 4C = 4 compartment



Manufactured with a single cover and matching compartments to form a 90° Horizontal L.

Horizontal L Fitting

Cat. No.	Associated Trench	Outside Cover Dimension	No. of Compartments
OKL/B9-3C	OKA/B9-3C	12" x 12"	3
OKL/B12-4C	OKA/B12-4C	15" x 15"	4
OKL/C12-3C	OKA/C12-3C	15" x 15"	3
OKL/B12-3C	OKA/B12-3C	15" x 15"	3

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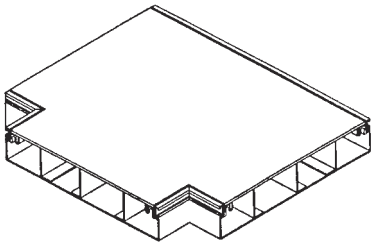
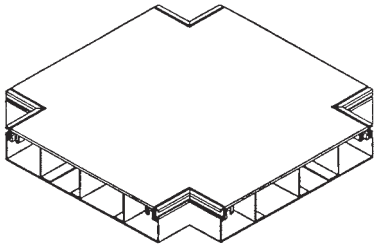


Manufactured with internal partitions and crossovers to isolate power and communication.

Single Level "T" Junction Fitting

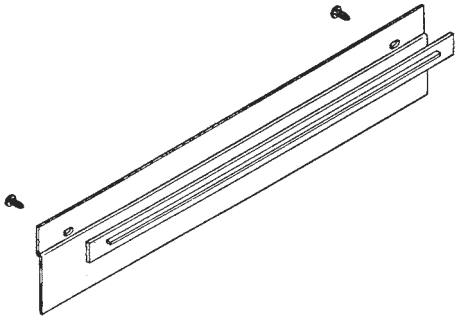
Cat. No.	Cover Dimensions	Associated Trench
OKT/B9-3C	15" x 12"	OKA/B9-3C
OKT/B12-4C	18" x 15"	OKA/B12-4C
OKT/B12-3C	18" x 15"	OKA/B12-3C
OKT/C12-3C	18" x 15"	OKA/C12-3C



Manufactured with internal partitions and crossovers to isolate power and communication.

Single Level "X" Junction Fitting

Cat. No.	Cover Dimensions	Associated Trench
OKX/B9-3C	15" x 15"	OKA/B9-3C
OKX/B12-4C	18" x 18"	OKA/B12-4C
OKX/B12-3C	18" x 18"	OKA/B12-3C
OKX/C12-3C	18" x 18"	OKA/C12-3C



Fits over end of trench run to close trench and prevent foreign material from entering. End cap may be drilled to accept conduit.

End Cap

Cat. No.	Width	Maximum Conduit	Depth
OKE/B9	10"	1¼"	2 9/16"
OKE/B12	13"	1¼"	2 9/16"
OKE/C12	13"	2"	3 1/16"

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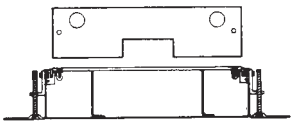
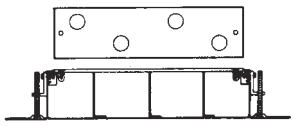
Type A



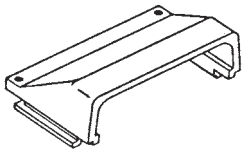
Type C



Exit Covers

Cat. No.	Conduit Hole Size	Trench Width
OKC/9-3/4A	¾"	9"
OKC/12-3/4A	¾"	12"
OKC/9-3/4C	¾"	9"
OKC/12-3/4C	¾"	12"

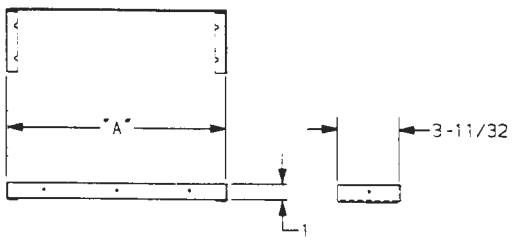
Designed to provide exit and feed for Steel City Trench Duct trench. Conduit openings are provided for power and communication exit or feed using conventional fittings or service fittings. Cable exit cap (OKSK) is for communication cable only. Exit fittings cover may be spaced anywhere along the length of the trench. All exit fitting covers are 6" long.

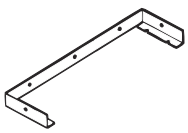


Cable Exit Cap

Cat. No.	Description
OKSK	Cable Exit Cap

Fits opening on Exit Cover. Provides outlet for communication cable. Debris barrier included. Cable Exit Cap constructed from die cast aluminum. For use with Type A exit covers only.





Trench to Wallduct Adapter

Cat. No.	A
OWV/D12	11⅞"
OWV/D18	17⅞"

Screws included.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

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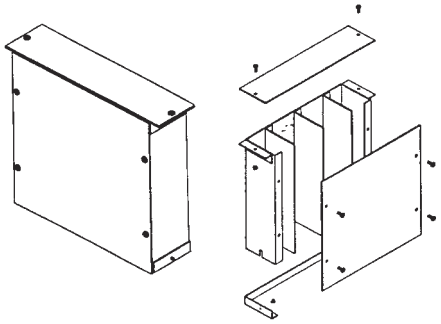
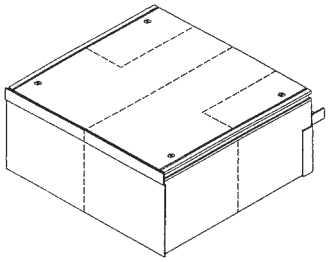


Vertical Riser Fitting

Cat. No.	Associated Trench	No. of Compartments	D	W	H
OKR/D9-3C	OKA/B9-3C	3	3½"	9"	12"
OKR/D12-4C	OKA/B12-4C	4	3½"	12"	12"
OKR/D12-3C	OKA/B12-3C OKA/C12-3C	3	3½"	12"	12"

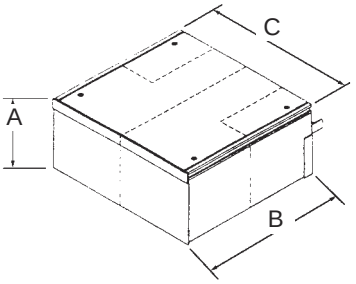
Manufactured to mount on trench in place of cover. Partitioned to separate cells and flanged to attach to pull box. Removable front cover and top cover. Standard height above finish floor—12 inches. Standard depth—3½" inches.



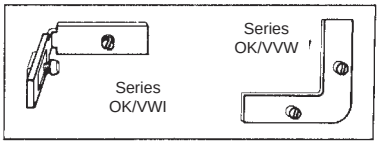
Pull Box

Cat. No.	Associated Trench	Dimensions A	B	C
OKB/B9-3C	OKA/B9-3C	6"	12"	9"
OKB/B12-4C	OKA/B12-4C	6"	12"	12"
OKB/B12-3C	OKA/B12-3C	6"	12"	6"
OKB/C12-3C	OKA/C12-3C	6"	12"	6"

UL Listing No. 884



Manufactured to attach to trench section replacing end cap. Divided into compartment as shown. Additional depth permits attachment of larger conduit. Will accept up to 4" conduit. Box is field punched.



Fastening Angles

Cat. No.	Description
OK/VWI	Horizontal Angle
OK/VVW	Vertical Angle

Accessories to join trench sections for field fabrication of horizontal and vertical assemblies.

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Specifications

Steel City Trench Duct has been designed to offer the most complete in-floor wire management system for computer terminals. The particular use for retail store checkout counters using scanners has been selected for this catalog. Its potential capacity, unlimited point-of-delivery, and wire compartmentalization provide flexibility for current requirements as well as future needs.

Steel City Trench Duct may be specified for stores that are being retrofitted for the use of scanners as well as new stores.

The specifier should consider the following:

1. The two outer compartments for the 9" and 12" sizes (2½" deep) each have 5.4 in^2 wiring capacity. (This provides greater capacity than 2½" conduit). Two power compartments are offered:

- One for computer dedicated circuits
- One for general purpose power

2. The outer compartments should be chosen for the power since runs of conduit can be tapped off the sides of the duct (¾" and 1") to specially placed floor boxes or stubbed out of the concrete to provide power at locations to the left or right of the trench.

3. The inside compartments of the four compartment 12" wide duct (OKA/B12-4C) each have 7.7 in^2 wiring capacity in a cross-sectional area that is 3½" x 2¼" on sides. The largest electronic connector can pass through this area and exit with ease. One of these can be designated for computer cables and the other for intercommunication or telephone. Depending on the sensitivity of the system, these two compartments may be used interchangeably.

4. Covers may be adjusted to any location as well as the exit fitting covers. Therefore, predetermination of exit locations is not required and future access to the wiring at any location is available.

5. To feed the computer location or checkout counter, service fittings with receptacles may be used or the exit fitting cover hard wired to the point of delivery. For example, flexible metallic conduit or liquidtight conduit may be used between the exit fitting cover and a utility box with a receptacle directly under the counter.

6. Cable exit caps may be used for computer, telephone, or intercommunication cables. In certain cases, armored or other approved cable may be permitted with the cable exit cap.

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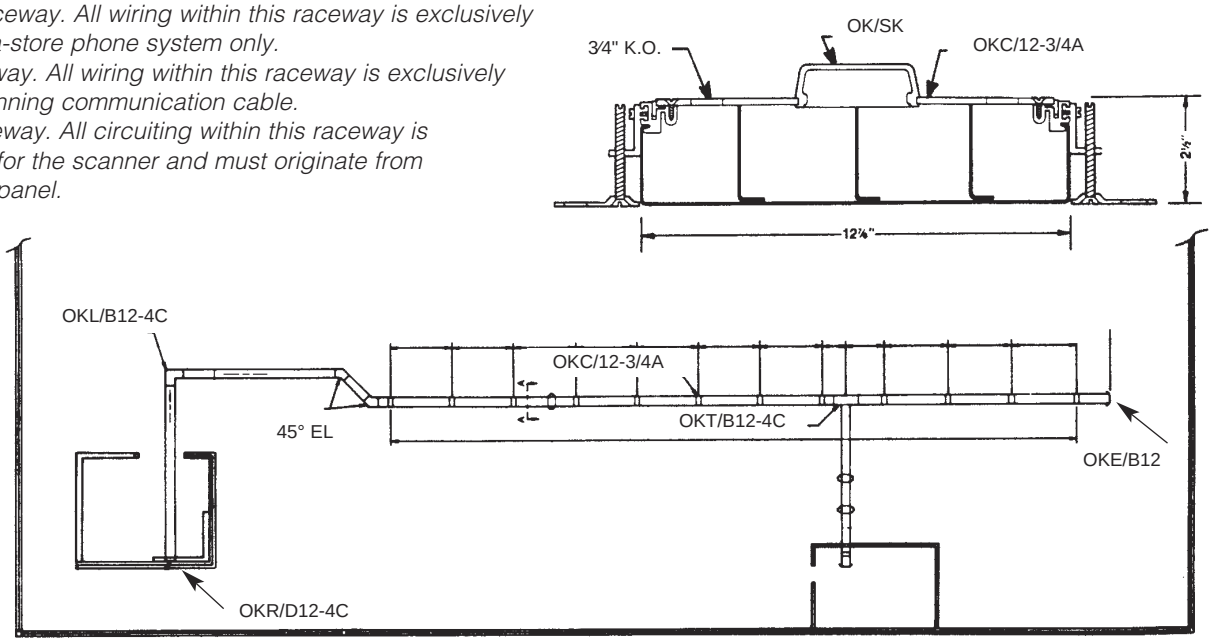
Trench Duct Installation Instructions

A. First raceway. Circuiting within this raceway shall not originate or in any way be connected or routed through dedicated panel.
B. Second raceway. All wiring within this raceway is exclusively for the intra-store phone system only.
C. Third raceway. All wiring within this raceway is exclusively for the scanning communication cable.
D. Fourth raceway. All circuiting within this raceway is dedicated for the scanner and must originate from dedicated panel.



Store Layout Example—Checkout Counter

Material

1.1 General inspection of shipment.
1.1.1 Inspect all parts for visible damage.
1.1.2 Determine that the proper number of parts were received. Notify factory immediately if a discrepancy is found.
1.1.3 If shop drawings were provided, installer must familiarize himself with all details.
1.1.3.1 Installer must compare shop drawings with actual jobsite conditions.
1.2 Inspection of Trench Components.
1.2.1 Examine trench for proper number and placement of partitions.
1.2.2 If trench is factory marked, confirm markings.
1.2.3 Do not remove covers from trench. Covers remain on trench during pour.

Before Pour

2.1 General Jobsite Conditions.
2.1.1 Determine a reference point for the start of assembly work. This includes an elevation mark as well as horizontal placement. Confirm by shop drawings when available.
2.1.2 Clear the site of obstructions so installer has a clear working area.
2.1.3 If installation is on grade, prepare the grade and check specifications for type of footing.
Note: It is useful to install a rough slab the length of the run. The slab should be 24" wide and poured 2½" to 3½" below the finished floor screed. This will assure fast installation and assure accuracy of positioning.
2.2 Installation Sequence of Trench.
2.2.1 Position trench section being careful of location of the power compartment. (See Store Layout Example above.)
2.2.2 Install and assemble duct to trench if required. (see Part 3.2.6) Refer to installation shop drawings.
2.2.3 Couple trench sections. (See Part 3.2).
2.2.4 Carefully align the trench as shown on the plans.
2.2.5 Fasten the support feet securely to the concrete form, structure or grade.
2.2.6 Install end caps as required.

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Trench Duct Installation Instructions

Part 3—Assembly of Components

3.1 General Assembly Requirements

3.1.1 The power compartment of trench must match and be as shown on the plans.

3.1.2 Continuity of ground must be assured in all metal parts.

3.2 Trench Components.

3.2.1 Do not remove covers before pour.

3.2.2 Trench sections are coupled using coupling clip furnished on the aluminum profile at the end of the trench. Clip may be part of the support assembly.

3.2.3 Check match of internal partition before completing couple.

3.2.4 Set screws on trench coupling clip must be tightened to assure continuity of ground.

3.2.5 If rough slab is not available (see 2.1.3 Note) special care must be taken to assure support of mounting feet and protect against movement during pour.

3.2.6 Junction fittings to adapt trench to underfloor raceway do not require rough slab (see 2.1.3 Note) but must be secure.

3.2.7 Underfloor raceway requires concrete around supports (couplers) and under raceway.

3.2.8 Tape underfloor raceway if ingress of concrete could occur.

3.2.9 Field modification of trench.

3.2.9.1 Where necessary trench can be cut on the jobsite. For this purpose, bandsaws, hacksaws, or cutting wheels can be used.

3.2.9.2 When field cutting, do not remove cover to assure a proper finished joint.

3.2.9.3 Horizontal Ell's or offsets may be field fabricated by cutting equal angles from each of the pieces to be joined.

a. 45° cuts from axis of trench join to make a 90° horizontal offset.

b. 22½° cuts join to make a 45° horizontal offset.

c. Partitions must match.

d. Use OK/VWI to join pieces.

3.2.9.4 A vertical Ell may be field fabricated using a section of trench cut to desired height and OK/VVW fastening angles used to join sections.

Part 4—Securing, Elevating and Leveling System Prior to Pour

4.1 General. The top of the system must be at screed level. Specifically this includes the trench covers.

4.1.1 When elevating and leveling system use laser level, electronic level, transit, conventional level, or any approved system.

4.2 Leveling Trench.

4.2.1 Turn leveling screws of the trench support assembly to bring the cover of the trench to screed.

4.2.2 Level the trench in one direction to prevent distortion of system.

Part 5—During and After Pour

5.1 General Considerations

5.1.1 Check installation for security, location and elevation.

CAUTION: The covers of the system serve as the screed line. They must be protected from accidental movement before and during pour. Correcting components for elevation after concrete has set requires extensive labor.

5.1.2 If concrete mix is especially thin (fluid), gaps and openings in the system should be sealed with duct tape or other approved method.

5.1.3 For aggregate greater than ¼ inch, concrete flow around components must be assured.

5.2 Trench Components.

5.2.1 Covers of trench serve as guide for pouring concrete the level of the finished floor.

5.2.2 Concrete must be inserted under trench by shovel or trowel.

5.2.3 Hand screed to top of trench.

5.2.4 The concrete must adhere tightly to the trench edges.

5.2.5 The covers of the trench must be exposed when the concrete floor is finished.

5.2.6 Remove sufficient covers to allow ventilation after concrete is set.

Part 6—Activation

6.1 Activation Sequence.

6.1.1 Correct any variation in concrete pour along edges of trench.

6.1.2 Remove covers from trench, and inspect installation.

6.2 Activating Trench.

6.2.1 Upon removing covers 6.1.2, lay the covers beside the trench in their relative position.

6.2.2 Where exit fitting covers or other trench exit fittings are required, lay them beside the trench in their relative position.

6.2.3 If floor finish is not to be interrupted by tile trim to establish continuity of floor cover, tile trim is to remain in shipping position. Do not elevate.

6.2.4 Lay the required wiring in the trench.

6.2.5 Mount the exit fitting covers or other trench exit fittings on trench at proper location.

6.2.6 Install cover joint protectors. OK/DSD.

6.2.7 Install standard covers. Covers may be adjusted or cut if required to complete enclosure.

6.2.8 Remove cover adjacent to exit fittings to complete wiring.

6.2.9 Lay floor covering. Take care to assure level floor over trench. Use floor patch if necessary.

6.2.9.1 If tile trim is used, adhesion between outer tile and tile trim must be assured and tile on covers accurately positioned.

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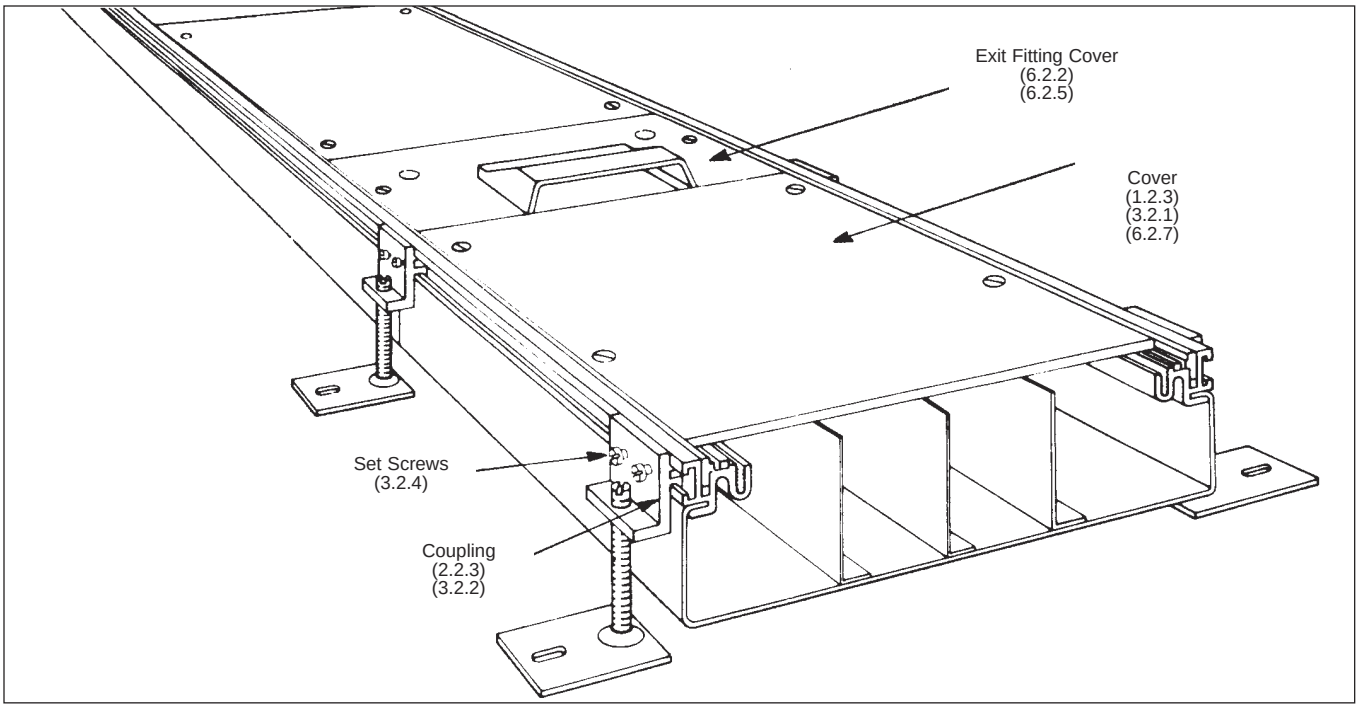
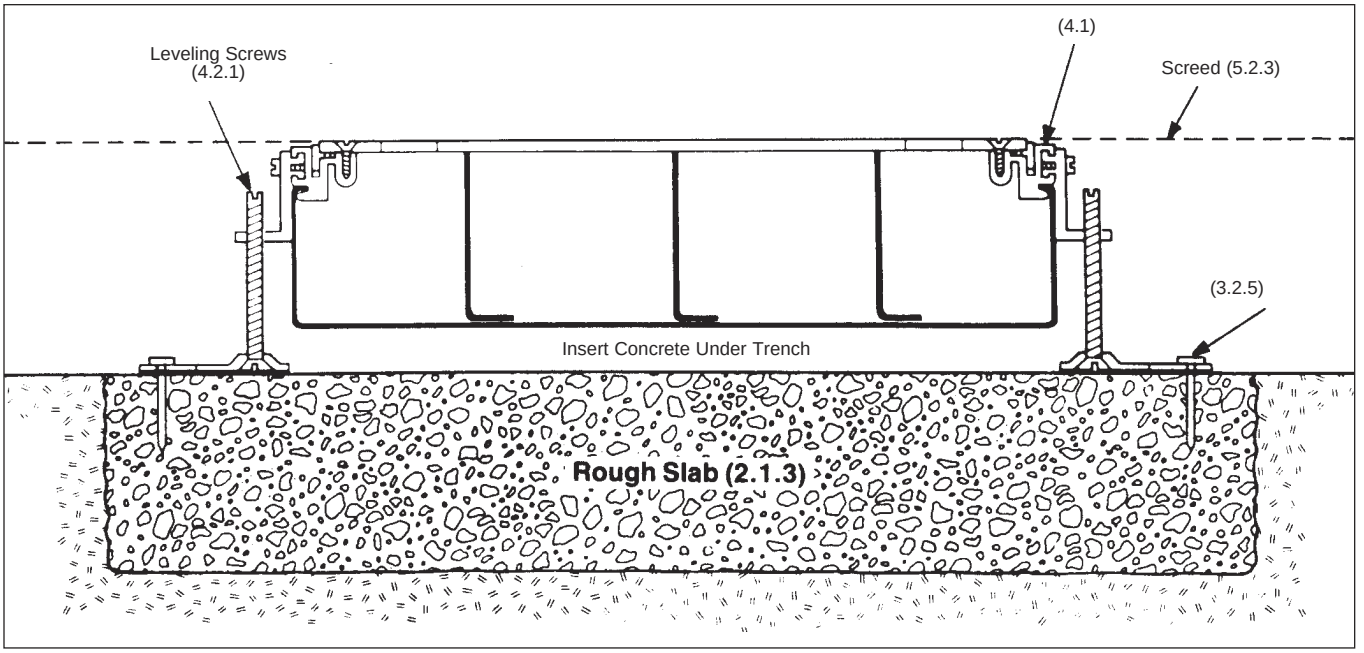
Components



Trench Position Prior to Pour



Grade

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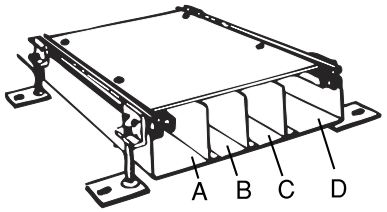
Trench Duct Wire Fill Capacity



OKA/B12-4C

Dimensions – Trench Duct

	A	B	C	D	Total
OKA/B12-4C	5.4	7.8	7.8	5.4	26.4
OKA/B12-3C	5.4	15.7	5.4	—	26.5
OKA/B9-3C	5.4	9.2	5.4	—	20.0

	3.4 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	41	100	66	156	103
12	35	79	53	116	81
10	29	61	43	73	62
8	16	28	22	36	29
6	10	16	16	26	21

	5.0 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	61	148	97	229	152
12	52	116	79	170	119
10	43	90	64	108	92
8	23	42	33	53	43
6	16	24	24	38	32

	5.4 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	66	160	104	248	164
12	56	125	85	184	129
10	46	97	69	117	100
8	25	45	36	57	47
6	17	26	26	41	34

	7.8 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THHN/THWN**	**XHHW**
14	95	231	151	358	238
12	81	181	123	266	186
10	67	140	100	169	144
8	36	66	52	83	68
6	25	38	38	60	49

	9.2 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THHN/THWN**	**XHHW**
14	112	272	178	422	280
12	95	213	146	314	220
10	80	165	118	200	170
8	43	78	61	98	80
6	29	44	44	70	58

	13.7 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THHN/THWN**	**XHHW**
14	167	405	266	629	418
12	142	318	217	468	328
10	119	246	176	297	253
8	64	116	91	146	120
6	44	66	66	105	87

	15.7 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THHN/THWN**	**XHHW**
14	192	465	304	721	479
12	163	365	249	536	376
10	136	282	201	341	290
8	74	133	105	168	137
6	50	76	76	121	100

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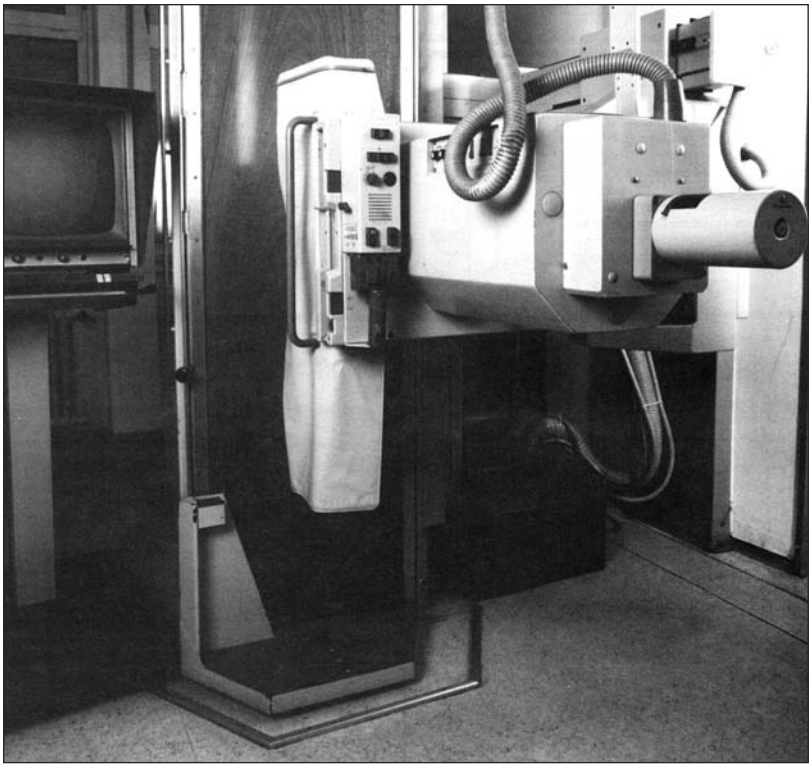

Flush or Surface Mounted Wiring System for X-Ray Rooms

Wall Duct is a steel raceway, approved by U.L. for the enclosure of wiring to X-ray machines in medical applications. The system provides complete lay-in wiring capability in order to accomodate the large cables and connectors used in today's installations.

Wall Duct, when used in combination with floor trench, provides protection for X-ray room wiring from control consoles to X-ray machines to power supplies to remote locations.

Wall Duct is available in either flush or surface mount and a combination will usually be required on any job. Vertical runs in the walls are usually flush mounted with horizontal runs on walls and all duct in ceiling plenum being surface type.

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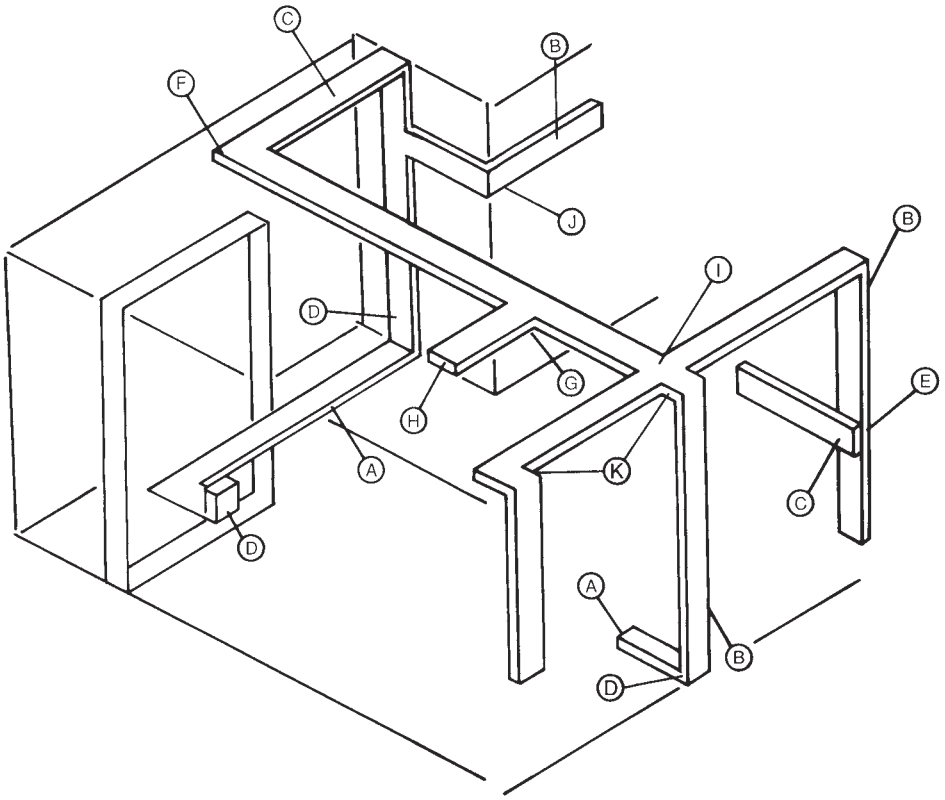

Wall and Ceiling Duct Description

Wall Duct is manufactured of 14 gauge steel. Bodies are pre-galvanized G90-U and covers are dip painted. The covers may be field painted to match room interiors. Straight bodies are 5'0" long with two 30" coverplates.
Wall Duct is U.L. Listed under File Number: E116245

A. OKA/B12-3C—Trench 12" wide, 2½" deep, 3 compartment. See page B101.

B. OWA/D12F—Wall Duct - 12" wide, 3½" deep, flush mounted. See page B112.

C. OWA/D12S—Wall Duct - 12" wide, 3½" deep, surface mounted. See page B112.

D. OWR/D12F—Wall Duct Riser - 12" wide, 3½" deep, flush mounted. See page B116.

E. OWB/D12-12—Wall Duct Flush to Surface Adapter - 12" wide, 3½" deep flush mounted. See page B112.

F. OWH/D12S—Wall Duct 90° Horizontal Elbow - 12" wide, 3½" deep, surface mounted. See page B114.

G. OWT/D12S—Wall Duct "T" Unit - 12" wide, 3½" deep, surface mounted. See page B117.

H. OWE/D12S—Wall Duct End Closure - 12" wide, 3½" deep, surface mounted. See page B113.

I. OWX/D12S—Wall Duct "X" Unit - 12" wide, 3½" deep, surface mounted. See page B118.

J. OWL/D12F—Wall Duct External Elbow - 12" wide, 3½" deep, flush mounted. See page B115.

K. OWI/D12F—Wall Duct Internal Elbow - 12" wide, 3½" deep, flush mounted. See page B114.

L. OWA/D18S—Wall Duct—18" wide, 3½" deep, surface mounted. See page B112.

M. OWA/D18F—Wall Duct—18" wide, 3½" deep, flush mounted. See page B112.

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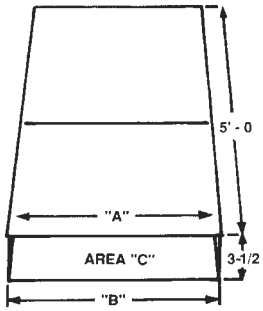


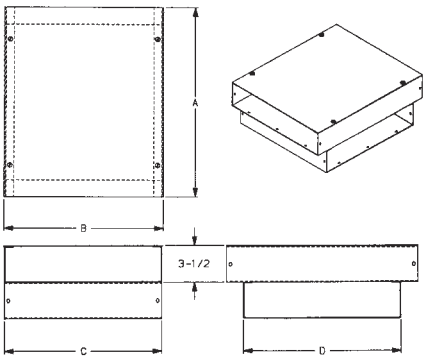
12" or 18" wide x 3½" deep x 60" long body with two 30" long coverplates. Each piece includes one coupling (Cat. No. OWC/D12 or OWC/D18) and necessary screws.

Wall and Ceiling Duct

Cat. No.	"A" Cover Width	"B" Body Width	"C" Area
OWA/D12S	12"	11 13/16"	39 sq. in.
OWA/D18S	18"	17 13/16"	59 sq. in.
OWA/D12F	14"	11 13/16"	39 sq. in.
OWA/D18F	20"	17 13/16"	59 sq. in.

May be field cut to required length. See installation instructions.

Material: 14 gauge pre-galvanized steel. Also available in aluminum. (consult factory)
UL Listing No. E116245

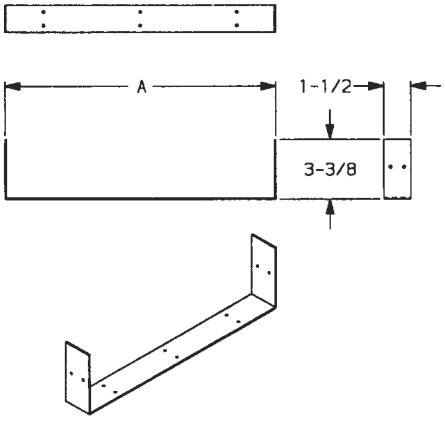


To transition from surface raceway to flush delivery.

Flush to Surface Adapter

Cat. No.	A	B	C	D
OWB/D12-12	15"	12"	11 13/16"	11 13/16"
OWB/D12-18	15"	18"	17 13/16"	11 13/16"
OWB/D18-12	21"	12"	11 13/16"	17 13/16"
OWB/D18-18	21"	18"	17 13/16"	17 13/16"

Includes two couplings.
Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245



Coupling

Cat. No.	A
OWC/D12	12"
OWC/D18	18"

Screws included.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

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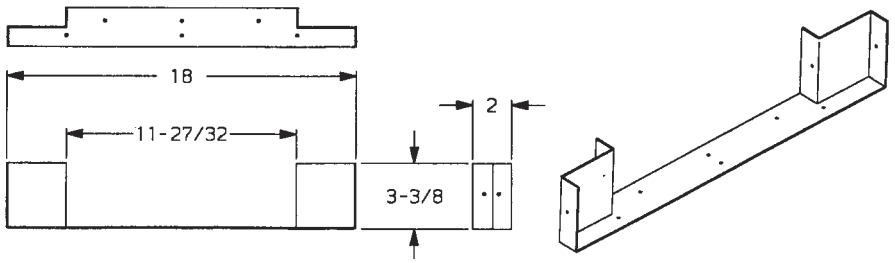
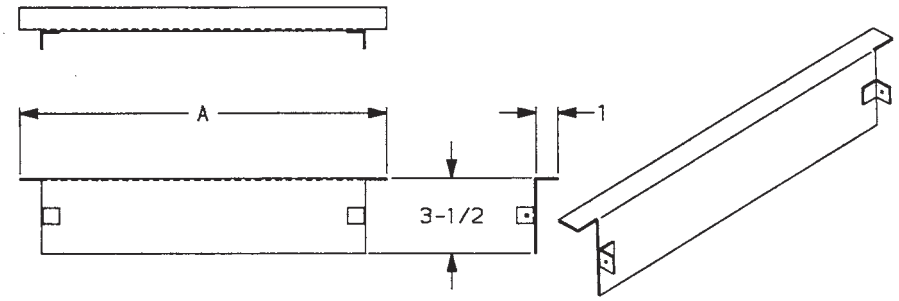


Reducer Coupling

Cat. No.	Description
OWD/D	Reduce from 18" to 12" duct

Screws included.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

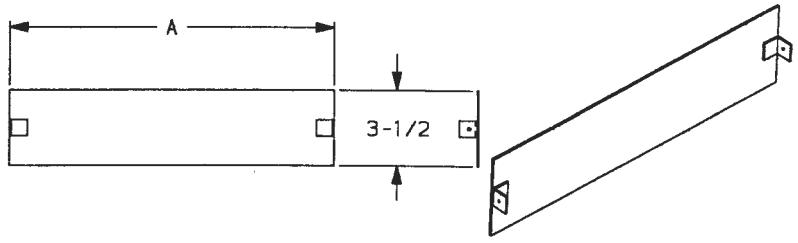


Flush End Closure

Cat. No.	A
OWE/D12F	14"
OWE/D18F	20"

Screws included.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

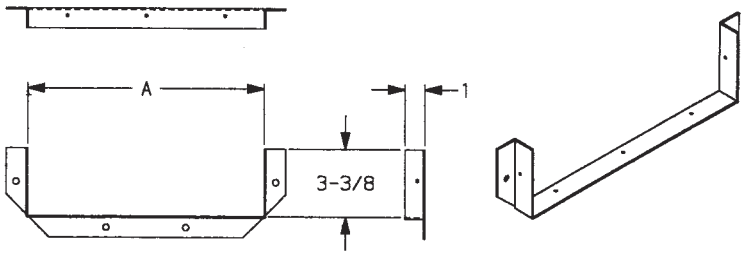


Surface End Closure

Cat. No.	A
OWE/D12S	12"
OWE/D18S	18"

Screws included.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245



Cabinet Connector

Cat. No.	A
OWF/D12	11⅞"
OWF/D18	17⅞"

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

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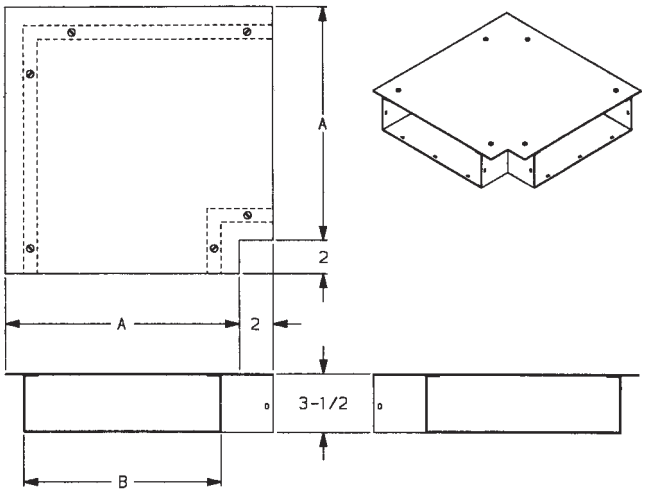
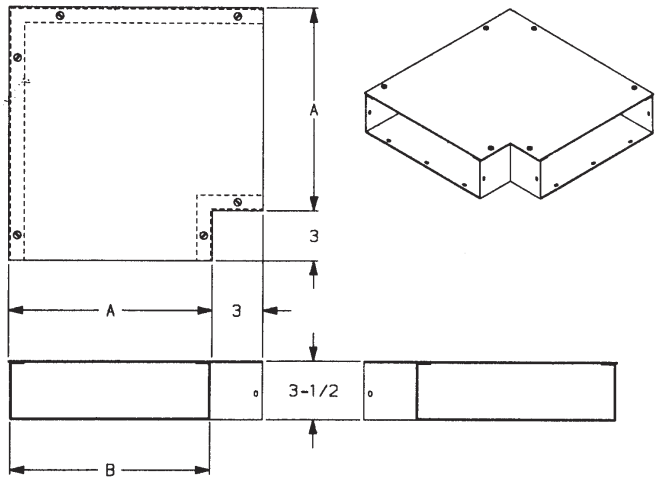


Flush 90°

Cat. No.	A	B
OWH/D12F	14"	11 13/16"
OWH/D18F	20"	17 13/16"

Includes one coupling.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

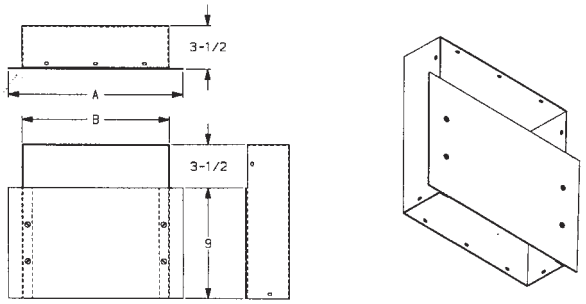


Surface 90°

Cat. No.	A	B
OWH/D12S	12"	11 13/16"
OWH/D18S	18"	17 13/16"

Includes one coupling.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245



Flush Internal Elbow

Cat. No.	A	B
OWI/D12F	14"	11 13/16"
OWI/D18F	20"	17 13/16"

Includes one coupling.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

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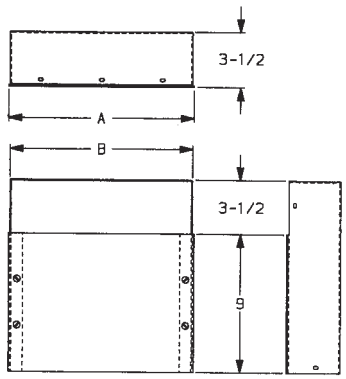
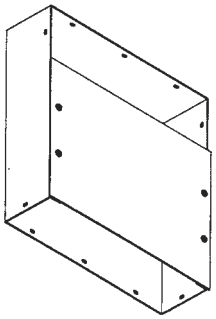


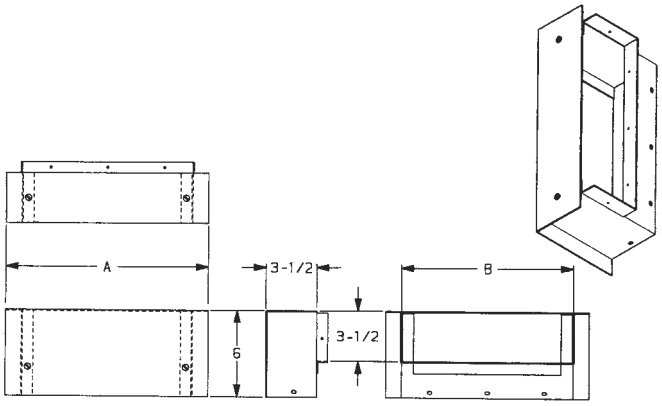


Surface Internal Elbow

Cat. No.	A	B
OWI/D12S	12"	11 13/16"
OWI/D18S	18"	17 13/16"

Includes one coupling.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

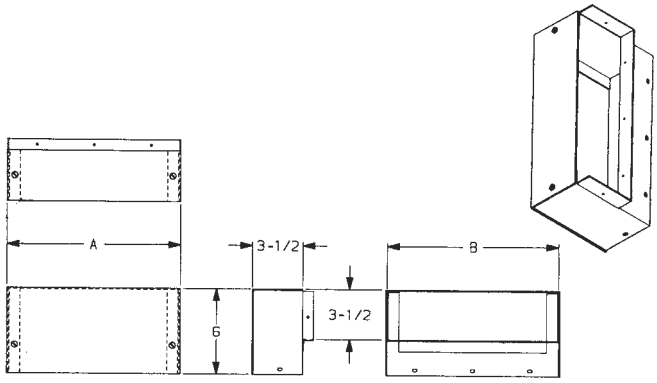


Flush External Elbow

Cat. No.	A	B
OWL/D12F	14"	11 13/16"
OWL/D18F	20"	17 13/16""

Includes one coupling.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245



Surface External Elbow

Cat. No.	A	B
OWL/D12S	12	11 13/16"
OWL/D18S	18"	17 13/16"

Includes one coupling.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

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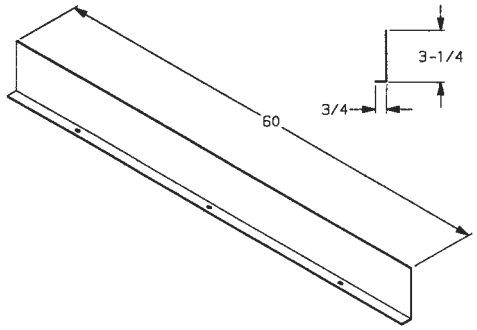
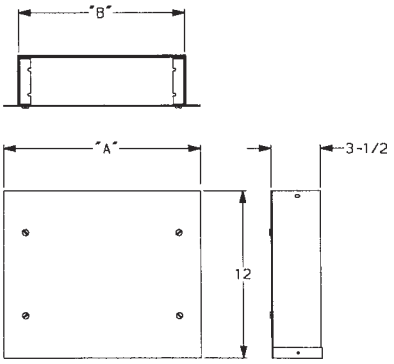


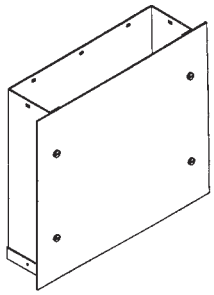
Partition

Cat. No.	Description
OWP/D	Internal duct partition

Screws included.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245



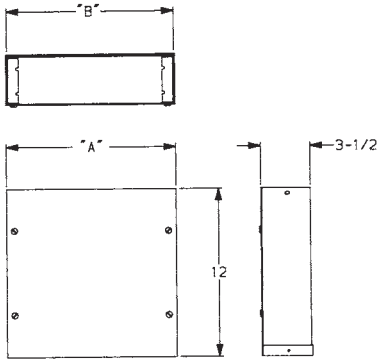


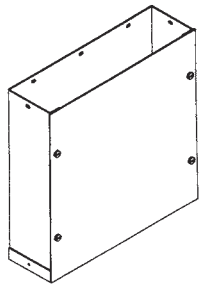
Flush Vertical Riser

Cat. No.	A	B
OWR/D12F	14"	11 13/16"
OWR/D18F	20"	17 13/16"

Includes one coupling.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245





Surface Vertical Riser

Cat. No.	A	B
OWR/D12S	12"	11 13/16"
OWR/D18S	18"	17 13/16"

Includes one coupling.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

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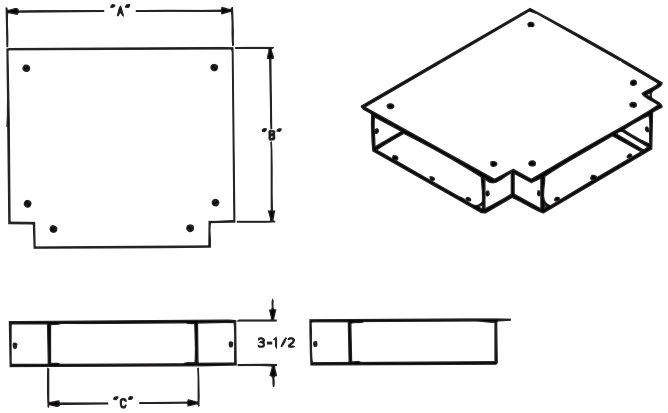
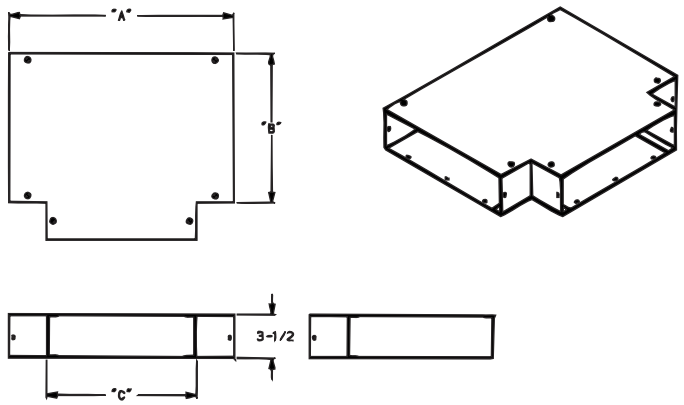


Flush "T" Unit

Cat. No.	A	B	C
OWT/D12F	18"	14"	11 13/16"
OWT/D18F	24"	20"	17 13/16"

Includes one coupling.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

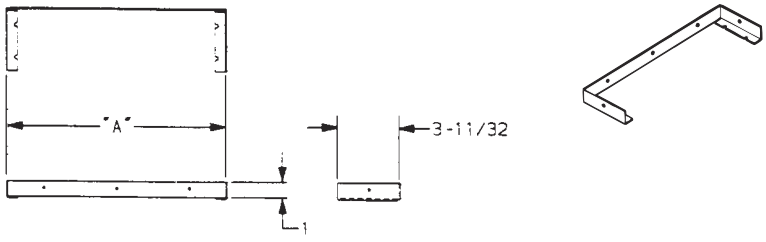


Surface "T" Unit

Cat. No.	A	B	C
OWT/D12S	18"	12"	11 13/16"
OWT/D18S	24"	18"	17 13/16"

Includes one coupling.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245



Trench to Wallduct Adapter

Cat. No.	A
OWV/D12	11 7/8"
OWV/D18	17 7/8"

Screws included.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

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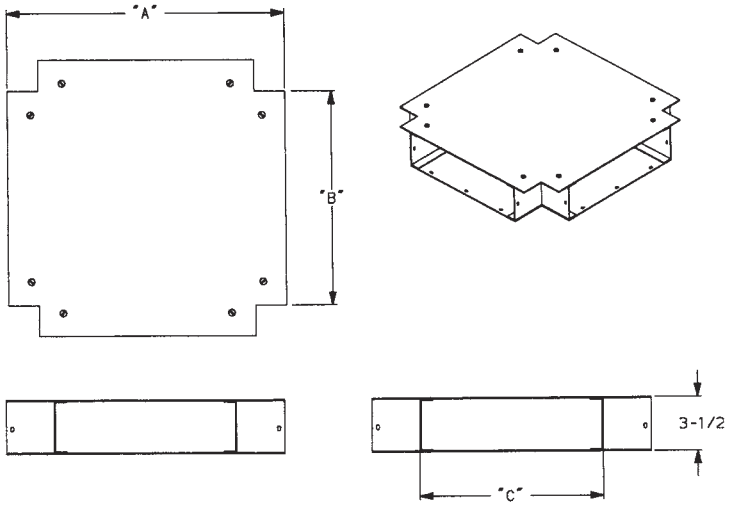
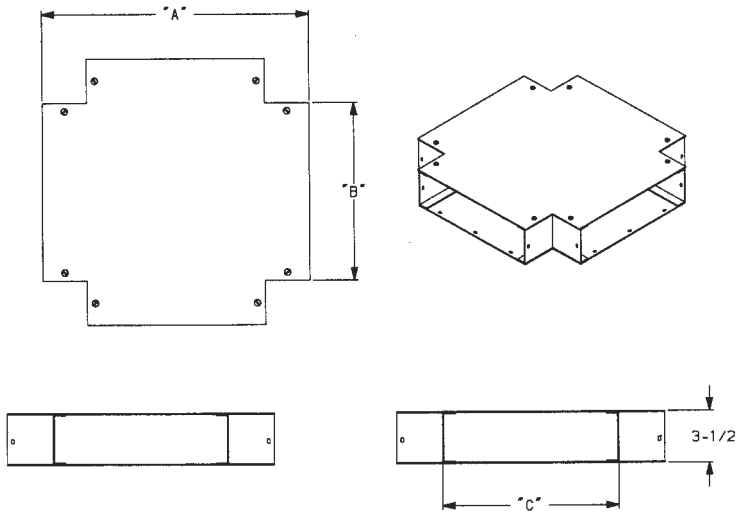


Flush "X" Unit

Cat. No.	A	B	C
OWX/D12F	18"	14"	11 13/16"
OWX/D18F	24"	20"	17 13/16"

Includes two couplings.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245



Surface "X" Unit

Cat. No.	A	B	C
OWX/D12S	18"	12"	11 13/16"
OWX/D18S	24"	18"	17 13/16"

Includes two couplings.

Material: 14 gauge pre-galvanized steel.
UL Listing No. E116245

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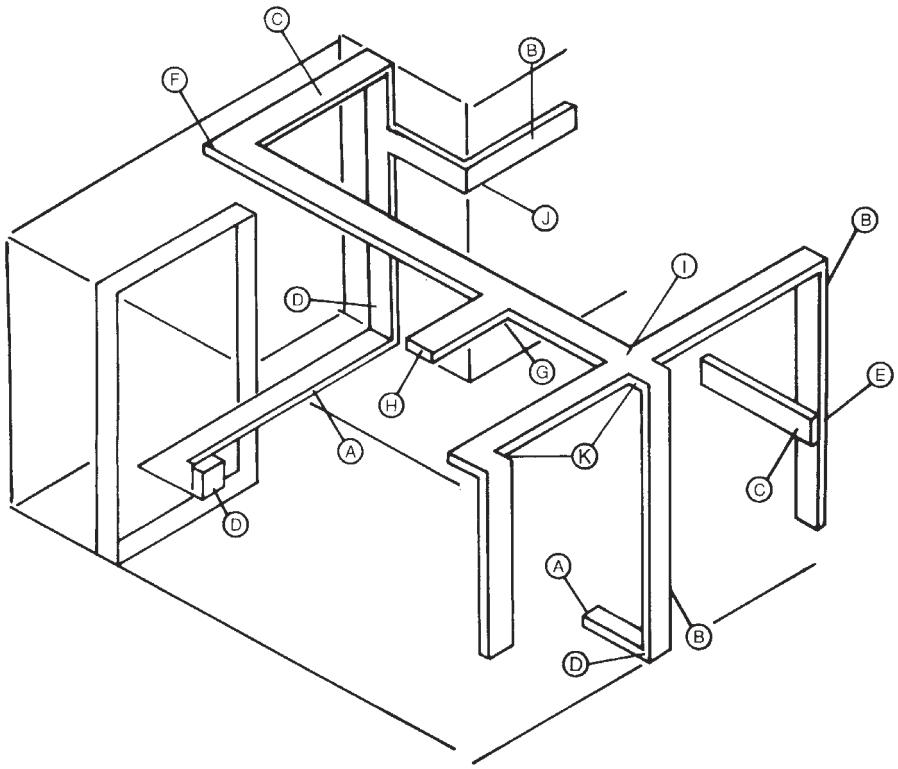
Wall Duct Installation Instructions



A. OKA/B12-3C—Trench
B. OWA/D12F—Wall Duct
C. OWA/D12S—Wall Duct
D. OWR/D12F—Wall Duct Riser
E. OWB/D12-12—Wall Duct Flush to Surface Adapter
F. OWH/D12S—Wall Duct 90° Horizontal Elbow
G. OWT/D12S—Wall Duct "T" Unit
H. OWE/D12S—Wall Duct End Closure
I. OWX/D12S—Wall Duct "X" Unit
J. OWL/D12F—Wall Duct External Elbow
K. OWI/D12F—Wall Duct Internal Elbow
L. OWA/D18S—Wall Duct
M. OWA/D18F—Wall Duct

Electrical contractor shall review the installation drawings provided and become familiar with all components used. Wall Duct must be installed and used in accordance with National Electrical Code Articles 300 and 660. Derating of power conductors as explained in note 8 of Tables 310-16 and 310-19 of the National Electrical Code shall govern. The maximum wire fill shall not exceed 40% of the interior cross sectional area of the Wall Duct. In all cases, local codes shall govern installation and use of this product.

Wall Duct may be mounted with screws through the sides or back. Screw must be installed so the head of the screw is inside the Wall Duct body. Exposed threads are not permitted on the inside of raceway. Overhead run of Wall Duct may be mounted directly to structural members or hung via trapeze. All hardware for mounting is by others, not Thomas & Betts.

All Wall Duct shall be installed, minus coverplates, before any wiring is placed in any portion of system. Wall Duct and fittings are to be assembled, minus coverplates, using the couplings and screws (8 x ¼ PHST-AB) provided. The screws are to be installed from the inside of the bodies.

When necessary to field cut a straight length to suit conditions, the coupling holes must be field drilled. Use the coupling as a template for proper hole placement. Do not enlarge diameter of coupling holes when field drilling duct body coupling holes.

Pull boxes to be furnished by others.

Field install accessories such as partitions, etc. by match drilling 5⁄32" diameter holes in the duct body using holes in item as template, and installing self-tapping screws provided with each item.

All above data per NEC, Chapter 9, Table 1.

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Wall Duct Wire Fill Capacity

	39 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	600	1122	746	1608	1122
12	442	862	600	1173	862
10	357	642	468	739	642

	59 Sq. In. Compartment				
Conductor	**RHW/RHH**	**TW**	**THW**	**THWN**	**XHHW**
14	908	1698	1129	2433	1698
12	669	1304	908	1774	1304
10	540	971	709	1118	971

Number of allowable conductors at 40% fill.

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